

An Assessment of Knowledge Towards Inguinal Hernia Among General Population of Riyadh City

Ahmed Alakeel, Khalid Aljlayl, Khalid Alfaryan, Waleed Alshamari, Abdulrahman Aljubair, Omar ALSaqabi

ABSTRACT

Objective- inguinal hernia is the most common type of hernia, comprising of approximately 75% of all abdominal wall hernias. It is one of the most common general surgical operations worldwide accounting for 10 to 15% of all surgical procedures.

Aim-to Assess the knowledge towards inguinal hernia among general population of Riyadh city.

Method: Data was collected from 997 person at Riyadh city in Saudi Arabia both males and females at the ages ranged from lower than 25 to more than 50. A cross sectional design were used. Questionnaire used to collect data.

Results-Seven hundred and twenty were female (71.5 %) and two hundred and seventy seven were male (53.3%). More than half of them were less 25 years of age (51.7%). About (82%) of them studied at university. From the study sample 54 (5.4%) have inguinal hernia. The majority of the sample (70.5%) answered that inguinal hernia is an abdominal prominence due to weakness. Only 19.6% answered that right pubic region is the most common site for inguinal hernia. Twenty eight percent of them said that inguinal hernia are most common in men while 31.3 % said its more common in women. Results represented that about (42.3%) of the respondents will go to doctor if they have hernia, and (61.5%) of them said that they will go to doctor at the same day. Most of the sample participants believed that there is a treatment for inguinal hernia and only doctor can treat it (84%). While most of the sample presented that being busy, high hospital cost, hospital delay, side effect, public treatment and fear of treatment will delay treatment (80.4%), (75.5%), (83.3%), (57.0%), (72.7%) and (70.8%) respectively. Results showed that (88.9%) of people home having hernia said that abdominal prominence due to weakness and (42.6%) of them said that naval is the most common site for hernia. (61.1%) said that lifting heavy objects is a reason (P value 0.000).

When they asked about the treatment, 72.2% said that there is a treatment for hernia and 81.5% said that doctor can treat it (P value 0.000).

Conclusion: this study highlighted inadequate knowledge, inappropriate attitudes and practices towards inguinal hernia among Riyadh city. The findings of the research showed that about 29 (14%) had inguinal hernia. Inguinal hernia in our study attributed to females more than males at the middle and late ages. Inadequate knowledge about the causes, signs and symptoms of the condition were found.

Keywords- knowledge of hernia, Hernia in Riyadh, Hernia risk factors, Inguinal hernia, causes of hernia

1 INTRODUCTION:

Hernia is mainly defined as a protrusion, bulge or projection of an organ or a part of an organ through the body wall that normally contains it. The most common type of hernia is inguinal hernia comprising of approximately 75% of all abdominal wall hernias [1],[2]. In an inguinal hernia the protrusion occurs through the inguinal canal [3]. Inguinal hernias occur in both sexes and they are more common in men (27%) compared with women (3%) [4],[7]. Inguinal hernias account for 75% of abdominal wall hernias, with a prevalence of 1.7% for all ages and 4% for those aged over 45 years. It is more common on the right than on the left with a ratio of 2:1 [7]. Other risk factors exist for the development of inguinal hernias reported to be associated with increased risk for both sexes include smoking, which causes a defective connective tissue metabolism, chronic obstructive pulmonary disease and heavy lifting [8]. Among women it's considered that rural residence, greater height, and umbilical hernia were risk factors for inguinal herniation [9],[7]. It was reported that factors such as lower body-mass

index, high intra-abdominal pressure, collagen vascular disease, thoracic or abdominal aortic aneurysm, patent processes vaginalis, history of open appendectomy, and peritoneal dialysis are also risk factors for inguinal hernia [8]. Some complications might rarely happened, include incarceration, bowel obstruction, and bowel strangulation (which is potentially fatal), with the greatest risk being found among older persons [10].

Inguinal hernia repair is a common general surgical operations worldwide accounting for 10 to 15% of all surgical procedures and is the second most common surgical procedure after appendectomy [11],[4]. The most common operations performed in children is inguinal hernia[5]. Suvera[5] reported that early detection and repair of inguinal hernia in pediatric patients is essential to decrease the potential morbidity and operative complications. This needs an increase in population, pediatrician, parents, and surgeon awareness. Rai and Shovskii [12],[13] reported that financial constraints and lack of awareness were reported as the most common reasons for the late presentation of hernia. In fact, people living with inguinal hernia have suffered various kinds

of stigma and discrimination, it was revealed that people living with a conditions of giant hydrocele and inguinal hernia either had difficulties to marry or remained unmarried for life. As a result, victims of inguinal hernia and hydrocele are considered infertile and worthless. Further, this makes people living with inguinal hernia to hide their positive status until they became gangrenous and gigantic resulting in emergency treatments or deaths. Salih [14] found that people with these conditions have severe psychological traumas in addition to the physical problem. WHO (2002) reported that urogenital disorders such as hydrocele and inguinal hernia are sources of social stigma, lower chances for employment, problems with sexual activities, physical deformation, and loss of work due to daily or frequent attacks of fever, pain, adenolymphangitis and low self-esteem or confidence. People living with victims of giant hydrocele and inguinal hernia were reported to have poor health-seeking behavior, in addition they were either negligent about their conditions, ignorant about the side effects or complications associated with their conditions, fear of impotency and death from surgical repairs of their conditions [14]. O'Donnell [15] reported that cultural and educational factors may prevent the realization of illness and the associated benefits from seeking health care. In addition, economic constraints might suppress proper utilization of health services available. Hence, unwillingness to provide appropriate interventions deny people access to health care.

Regarding to the high prevalence of inguinal hernia and the physical and psychological complications associated with it, the lack of adequate awareness and attention to this disorder, and the importance of early diagnosis and treatment of inguinal hernia in preventing their complications we conducted this study on the knowledge and practices regarding inguinal hernia. Available epidemiological data that may inform decisions and efforts required to help remove the misconceptions that many a people have about inguinal hernia and increase their awareness and knowledge regarding inguinal hernia in order to reduce the burden of hernia in Saudi Arabia.

2 METHODOLOGY

This section will present the methodology and design of the study, a brief description of the study area, study population, sample size, sampling method, data collection, data analysis, ethical considerations, and statistical design.

2.1 Study design:

A community-based descriptive cross-sectional study design was used to assess the knowledge, and practices of people about inguinal hernia in.

2.2 Study area/setting:

The study was carried out among general population of Riyadh city in Saudi Arabia.

2.3 Study period:

This study was attended in 8 weeks as the following:

1. Preparatory period (2weeks)
 - Selecting the title and carrying out the literatures review
 - Taking the permission
 - Preparing the questionnaire
 - Carrying out a pilot study
2. Field work (4 weeks)
 - Data collection
 - Data entry and analysis
3. Writing the report (2 weeks)

2.4 Study population

General population of Riyadh city were included in the study.

2.5 Sample size and sampling:

A study sample of 997 person from Riyadh city was participate in the study.

2.6 Inclusion criteria:

Persons whom approved to participate in the study will included in the study. All demographic data and investigation findings will noted.

2.7 Exclusion criteria:

Persons not fulfilling inclusion criteria and cases with incomplete data will excluded from the study.

2.8 Data collection instrument:

A structured questionnaire was used for data collection. The questionnaire divided in to five sections. The first part will be about personal information of the respondents .The second part elicited responses on the causes of inguinal hernia, while the third part about the attitudes towards inguinal hernia diagnoses. The fourth part focused on the attitudes towards inguinal hernia treatment. The last part focused on the misconceptions about inguinal hernia treatment. A research team that consisted of the researcher and research assistant were helped in collecting data via the questionnaire.

2.9 Data collection technique:

The researcher distributed a self-administered questionnaire to the participants by direct contact with them. Data were confirmed by hand then coded and

entered to a personal computer. Thanks and appreciations were used to encourage the participants to be involved in the study.

2.10 Statistical design

The questionnaires were coded before the analysis was carried out. Data will be processed using the statistical Package for Social Sciences (SPSS) software version 22.0. The Independent samples t-test used to compare two variables. Chi-square tests of independence will be used to analyze individual questions. A P-value of < 0.05 will be considered at the cut-off level for statistical significance.

2.11 Ethical considerations:

- An approval from the dean of the faculty of medicine were taken.
- Individual assent were filled by members.

2.11 Budget:

This study was be self-funded.

3 RESULTS:

3.1 Participants' characteristics

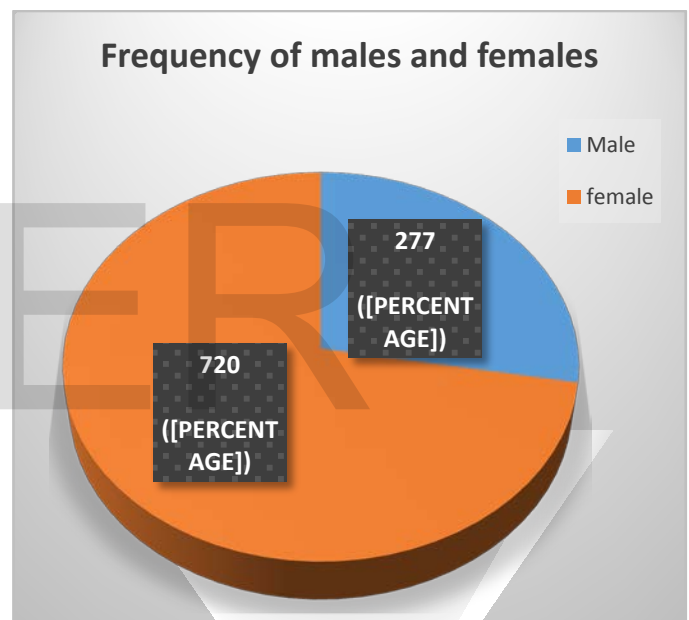
This study included 997 persons from Riyadh city. Socio-demographic characteristics of participants are presented in Table (1). Seven hundred and twenty were female (71.5 %) and two hundred and seventy seven were male (53.3%). More than half of of them were less 25 years of age (51.7%). About (82%) of them studied at university.

(Table: 1): Characteristics of the study sample (n= 997).

| Variable | N | % |
|---------------|-----|------|
| Age | | |
| <25 | 521 | 51.7 |
| 26-35 | 198 | 19.7 |
| 36-45 | 166 | 16.5 |
| 45> | 112 | 11.1 |
| Sex | | |
| Male | 277 | 27.5 |
| Female | 720 | 71.5 |
| Social Status | | |
| Married | 413 | 41.0 |
| Not Married | 557 | 56.3 |
| Divorced | 9 | 0.9 |
| Widowed | 8 | 0.7 |

| | | |
|---------------------|-----|------|
| Occupation | | |
| Student | 367 | 36.4 |
| Education | 183 | 18.2 |
| Private Sector | 72 | 7.1 |
| Health Sector | 27 | 2.7 |
| Soldier | 15 | 1.5 |
| Engineer | 9 | 0.9 |
| Officer | 33 | 3.3 |
| Governmental Sector | 16 | 1.6 |
| Don't Work | 273 | 27.1 |
| Education | | |
| Not educated | 5 | 0.5 |
| Primary school | 11 | 1.1 |
| Secondary school | 155 | 15.4 |
| University | 826 | 82.0 |

(Figure: 1): Frequency and percentage of males and female



3.2 Knowledge of inguinal hernia

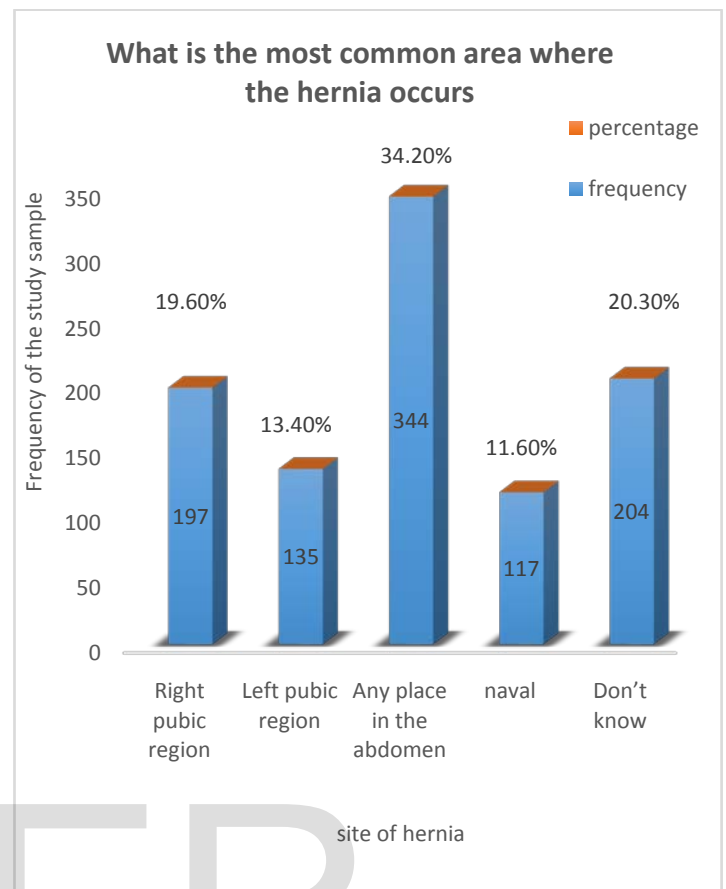
Table 2 shows the background of study sample. From the study sample 54 (5.4%) have inguinal hernia. The majority of the sample (70.5%) answered that inguinal hernia is an abdominal prominence due to weakness. Only 19.6% answered that right pubic region is the most common site for inguinal hernia. Twenty eight percent of them said that inguinal hernia are most common in men while 31.3 % said its more common in women.

(Table: 2): Background knowledge of the study sample (n= 997).

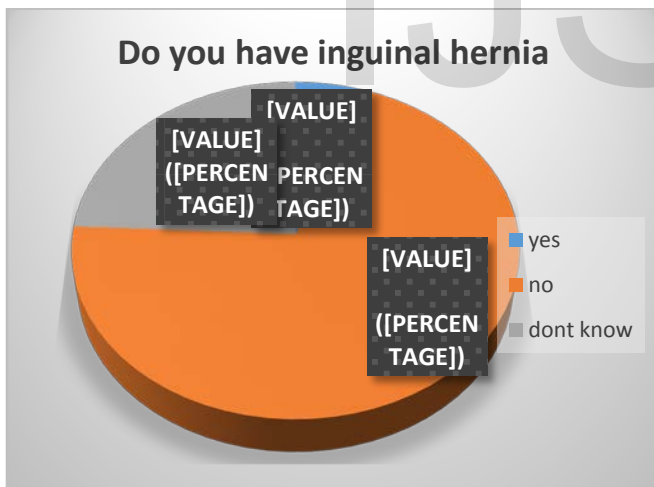
| Knowledge regarding hernia | N | % |
|-----------------------------|----|-----|
| Do you have inguinal hernia | | |
| Yes | 54 | 5.4 |

| | | |
|--|-----|------|
| No | 701 | 69.6 |
| Don't know | 242 | 24.0 |
| What is inguinal hernia | | |
| Abdominal prominence due to weakness | 710 | 70.5 |
| Inflammation of the abdomen | 28 | 2.8 |
| Don't know | 259 | 25.7 |
| What is the most common area where the hernia occurs | | |
| Right pubic region | 197 | 19.6 |
| Left pubic region | 135 | 13.4 |
| Any place in the abdomen | 344 | 34.2 |
| naval | 117 | 11.6 |
| Don't know | 204 | 20.3 |
| Hernia more common in women or men? | | |
| Women | 288 | 28.6 |
| Men | 315 | 31.3 |
| Don't know | 394 | 39.1 |
| Is hernia new disease? | | |
| Yes | 193 | 19.2 |
| No | 339 | 33.7 |
| Don't know | 465 | 46.2 |

(Figure: 2): Distribution of inguinal hernia among the study sample



(Table: 3) represents the percent of study sample about inguinal hernia treatment.



(Figure 3): knowledge regarding the most common of inguinal hernia

| Knowledge regarding hernia treatment | N | % |
|---|-----|------|
| What will you do if you have hernia | | |
| Go to doctor | 426 | 42.3 |
| Only noticed it | 149 | 14.8 |
| Go to doctor only if I have pain | 103 | 10.2 |
| Tell my relative | 306 | 30.4 |
| Popular treatment | 13 | 1.3 |
| If you see lump in pubic area would you see doctor? | | |
| At the same day | 619 | 61.5 |
| At my free time | 140 | 13.9 |
| When I have time | 157 | 15.6 |
| After one to three months | 81 | 8.0 |
| Is there treatment for hernia? | | |
| yes | 718 | 71.3 |
| no | 123 | 12.2 |
| Don't know | 156 | 15.5 |
| To your opinion who can treat hernia? | | |
| Doctor | 836 | 84.0 |
| Public treatment | 121 | 12.0 |
| Another way | 40 | 4.0 |

| | | |
|--|-----|------|
| Does Being busy delays treatment? | | |
| Yes | 810 | 80.4 |
| No | 187 | 18.8 |
| Does High cost in hospital delays treatment? | | |
| Yes | 760 | 75.5 |
| No | 237 | 23.5 |
| Does Delays from hospital delays treatment? | | |
| Yes | 839 | 83.3 |
| No | 158 | 15.7 |
| Does Fear of surgery delays treatment? | | |
| Yes | 713 | 70.8 |
| No | 284 | 28.2 |
| Does Side effect delays treatment? | | |
| Yes | 574 | 57.0 |
| No | 423 | 42.0 |
| Public treatment delay treatment? | | |
| Yes | 732 | 72.7 |
| No | 256 | 26.3 |
| Have you ever visit doctor for hernia? | | |
| Yes | 48 | 4.8 |
| No | 457 | 45.4 |
| I Haven't Hernia Before | 492 | 48.9 |
| The reason of visiting doctor? | | |
| Pain | 151 | 15.0 |
| Inflation | 350 | 34.8 |
| Other | 261 | 25.9 |
| Not Answer | 245 | 24.3 |
| How do you prefer to treat hernia? | | |
| Surgery | 640 | 63.6 |
| Medicine | 287 | 28.5 |
| Other | 70 | 7.0 |
| Why hernia patients refuse early surgery? | | |
| Fear | 242 | 24.0 |
| Its Small Volume | 100 | 9.90 |
| To Hide It | 280 | 27.8 |
| Wait Until It Disappear | 375 | 37.2 |

Results represented that about (42.3%) of the respondents will go to doctor if they have hernia, and (61.5%) of them said that they will go to doctor at the same day. Most of the sample participants believed that there is a treatment for inguinal hernia and only doctor can treat it (84%). While most of the sample presented that being busy, high hospital cost, hospital delay, side effect, public treatment and fear of treatment will delay treatment (80.4%), (75.5%), (83.3%), (57.0%), (72.7%) and (70.8%) respectively.

People knowledge regarding inguinal hernia causes presented in (Table: 4). Results revealed that only 126

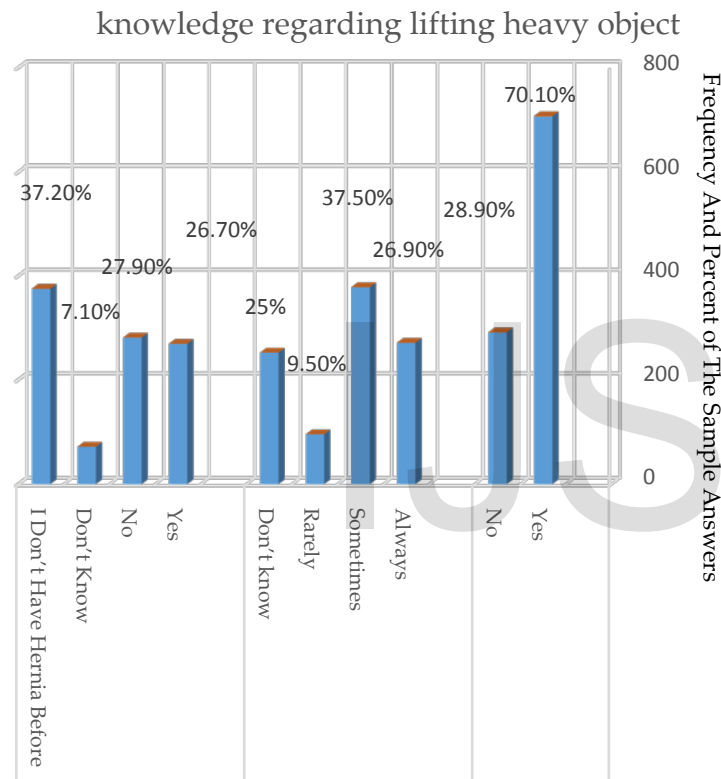
(12.5%) of the participants known that there is a cause for hernia. More than half of participants (64.5%) said that hard work is a reason and (34.1%) that aging causes hernia. Only 2.8%) and (3.7%) think that riding bicycle or sterility could cause hernia respectively.

(Table: 4): knowledge regarding hernia causes and misconception

| Knowledge regarding hernia causes and misconceptions | N | % |
|--|-----|------|
| Is there a reason for hernia? | | |
| yes | 126 | 12.5 |
| no | 286 | 28.4 |
| Don't know | 585 | 58.1 |
| What is the reason for inguinal hernia? | | |
| Hard work | 650 | 64.5 |
| Genetic | 71 | 7.1 |
| Un known reason | 79 | 7.8 |
| Don't know | 197 | 19.6 |
| Does aging increase the chance of occurrence? | | |
| Yes | 351 | 34.1 |
| No | 246 | 24.4 |
| Don't know | 400 | 39.7 |
| Does certain type of food causes hernia? | | |
| Yes | 182 | 18.1 |
| No | 356 | 35.4 |
| Don't Know | 459 | 45.6 |
| What do you think type of food causes hernia? | | |
| Fatty food | 113 | 11.2 |
| Chili food | 121 | 12.0 |
| Cola | 1 | 0.10 |
| Don't know | 244 | 24.2 |
| Don't answer | 528 | 52.4 |
| Have you ever worked hard or carried heavy things? | | |
| Yes | 706 | 70.1 |
| No | 291 | 28.9 |
| How many times you lift heavy objects? | | |
| Always | 271 | 26.9 |
| Sometimes | 378 | 37.5 |
| Rarely | 96 | 9.5 |
| Don't know | 252 | 25.0 |
| Do you lift heavy object before hernia happened? | | |
| Yes | 269 | 26.7 |
| No | 281 | 27.9 |
| Don't Know | 72 | 7.1 |
| I Don't Have Hernia Before | 375 | 37.2 |
| Does riding bicycle causes hernia? | | |
| Yes | 28 | 2.80 |
| No | 185 | 18.4 |
| Don't Know | 784 | 77.9 |
| Does sterility cause hernia? | | |

| | | |
|-------------------------------------|-----|------|
| Yes | 37 | 3.7 |
| No | 287 | 28.5 |
| Don't Know | 635 | 63.1 |
| Does hernia causes death? | | |
| Yes | 175 | 17.4 |
| No | 378 | 37.5 |
| Don't Know | 444 | 44.1 |
| There is no side effect for hernia? | | |
| Yes | 150 | 14.9 |
| No | 244 | 24.2 |
| Don't Know | 603 | 59.9 |

(Figure: 4): percent and frequency about lifting heavy objects



(Table: 5) showed results of the relation between having inguinal hernia and participant age and sex. It showed that 37 % pf males have inguinal compared with 63 % of females. With related to age, 25.9 % and 29.6 % of the participants at the ages 36-45 and more than 45 years of old respectively (P value 0.000).

(Table: 5): relation between having inguinal hernia and the two variables age and sex (N=54)

| variable | Do you have hernia |
|----------|--------------------|
|----------|--------------------|

| | yes | no | Don't know | P value |
|--------|------------|-------------|-------------|---------|
| Sex | | | | |
| Male | 20 (37.0%) | 193 (27.6%) | 64 (26.4%) | 0.00 |
| Female | 34 (63.0%) | 507 (72.4%) | 178 (73.6%) | |
| Age | | | | |
| <25 | 15 (27.8%) | (353) 50.4% | (153) 63.2% | 0.00 |
| 26-35 | (9) 16.7% | (145) 20.7% | (44) 18.2% | |
| 36-45 | (14) 25.9% | (124) 17.7% | (28) 11.6% | |
| 45> | (16) 29.6% | (79) 11.3% | (17) 7.0% | |

(Table: 6) showed relation between having hernia and knowledge about inguinal hernia. Results showed that (88.9%) of people home having hernia said that abdominal prominence due to weakness and (42.6%) of them said that naval is the most common site for hernia. (61.1%) said that lifting heavy objects is a reason (P value 0.000). When they asked about the treatment, 72.2% said that there is a treatment for hernia and 81.5% said that doctor can treat it (P value 0.000).

(Table: 6): relation between having hernia and knowledge about inguinal hernia.

| variable | Do you have hernia | | | P value |
|--|--------------------|-------------|-------------|---------|
| | Yes | No | Don't know | |
| What is inguinal hernia | | | | 0.000 |
| Abdominal prominence due to weakness | 48 (88.9%) | 527 (75.3%) | 134 (55.4%) | |
| Inflammation of the abdomen | 1 (1.90%) | 17 (2.40%) | 10 (4.10%) | |
| Don't know | 5 (9.30%) | 156 (22.3%) | 98 (40.5%) | |
| What is the most common area where the hernia occurs | | | | 0.000 |
| Right pubic region | 14 (25.9%) | 137 (19.6%) | 46 (19.0%) | |
| Left pubic region | 7 (13.0%) | 90 (12.9%) | 38 (15.7%) | |
| Any place in the abdomen | 7 (13.0%) | 255 (36.4%) | 82 (33.9%) | |

| | | | | |
|--|---------------|----------------|----------------|-------|
| naval | 23 (42.6%) | 70 (10.0%) | 24 (9.9%) | |
| Don't know | 3 (5.60%) | 148 (21.1%) | 52 (21.5%) | |
| What is the reason for inguinal hernia | | | | 0.000 |
| Hard work | 33 (61.1%) | 487 (69.6%) | 122 (50.4%) | |
| Genetic | 3 (5.60%) | 35 (5.00%) | 34 (14.0%) | |
| Unknown reason | 2 (3.70%) | 53 (7.60%) | 24 (9.90%) | |
| Don't know | 16 (29.6%) | 125 (17.9%) | 62 (25.6%) | |
| Does aging increase the chance of occurrence | | | | .000 |
| Yes | 21 (38.9%) | 240 (34.3%) | 92 (38.0%) | |
| No | 6 (11.1%) | 180 (25.7%) | 58 (24.0%) | |
| Don't know | 27 (50.0%) | 280 (40.0%) | 92 (38.0%) | |
| Does certain type of food causes hernia | | | | .000 |
| Yes | 2 (3.70%) | 130 (18.6%) | 50 (20.7%) | |
| No | 34 (63.0%) | 251 (35.9%) | 70 (28.9%) | |
| Don't Know | 18 (33.3%) | 319 (45.6%) | 122 (50.4%) | |
| Is there treatment for hernia? | | | | .000 |
| Yes | 93 (72.2%) | 506 (72.3%) | 173 (71.5%) | |
| No | 6 (11.1%) | 86 (12.3%) | 30 (12.4%) | |
| Don't know | 9 (16.7%) | 108 (15.4%) | 39 (16.1%) | |
| To your opinion who can treat hernia? | | | | .000 |
| Doctor | 44 (81.5%) | 586 (83.7%) | 206 (85.1%) | |
| Public treatment | 9 (16.7%) | 85 (12.1%) | 26 (10.7%) | |
| Another way | 1 (1.90%) | 29 (4.10%) | 10 (4.10%) | |
| Is there a reason for hernia? | | | | 0.000 |

| | | | | |
|------------------------------------|---------------|----------------|----------------|-------|
| Yes | 6 (11.1%) | 87 (12.4%) | 43 (14.0%) | |
| No | 18 (33.4%) | 200 (28.6%) | 71 (29.2%) | |
| Does riding bicycle causes hernia? | | | | 0.000 |
| Don't know | 30 (55.6%) | 413 (59.0%) | 137 (56.6%) | |
| Yes | 2 (3.7%) | 19 (2.7%) | 7 (2.7%) | |
| No | 10 (18.5%) | 125 (17.9%) | 50 (20.7%) | |
| Don't Know | 42 (77.8%) | 556 (79.4%) | 185 (76.4%) | |
| Does sterility causes hernia? | | | | .000 |
| Yes | 2 (3.7%) | 25 (3.6%) | 11 (4.5%) | |
| No | 15 (27.8%) | 207 (29.6%) | 65 (26.9%) | |
| Don't Know | 37 (68.5%) | 443 (63.3%) | 153 (63.2%) | |
| Does hernia causes death? | | | | .000 |
| Yes | 7 (13.0%) | 125 (17.9%) | 50 (20.7%) | |
| No | 16 (29.6%) | 274 (39.1%) | 86 (35.5%) | |
| Don't Know | 31 (57.4%) | 301 (43.0%) | 106 (43.8%) | |
| There is no side effect for hernia | | | | .000 |
| Yes | 12 (22.2%) | 101 (14.4%) | 41 (16.9%) | |
| No | 13 (23.2%) | 171 (24.4%) | 64 (26.4%) | |
| Don't Know | 29 (53.7%) | 428 (61.1%) | 137 (56.6%) | |

4 DISCUSSION:

This section discusses the results of the study in relation to the objectives and key variables of the research. The purpose of this study was to assess the knowledge, attitudes and practices towards inguinal hernia among general population in Riyadh city.

Our results presented that 28% of participant said that inguinal hernia are most common in men while 31.3 % said its more common in women. Thus, with regarding to

the relation between having inguinal hernia and participant age and sex. Results showed that 37 % of males have inguinal compared with 63 % of females. With related to age, 25.9 % and 29.6 % of the participants at the ages 36-45 and more than 45 years of old respectively (P value 0.000). Ruhland Everhart (2007) found that the incidence of hernia was higher in men (13.9%) than women (2.1%) and a higher incidence (P < 0.05) of inguinal hernia was associated with an age of 40-59 years and an age of 60-74 years. Fatima and Mohiuddin (2014) Inguinal hernia was seen in 365(84.3%) males and 68(15.7%) females, peak incidence was seen in the age group 0-10 years. Out of the total 61 direct inguinal hernias in males, peak incidence was seen in the age group 61-70 and was found to be statistically significant. Study by Charles N.R et al. (2000), shows that 93.2% of all inguinal hernia cases were males, 6.7% were females. Children below 14 yrs. were included in this study. Maximum number of inguinal hernia cases was seen between 2-3 years of age.

Our findings reported that 54 (5.4%) have inguinal hernia. The majority of the sample (70.5%) answered that inguinal hernia is an abdominal prominence due to weakness. Only 19.6% answered that right pubic region is the most common site for inguinal hernia. Ajabnoor, et al. (1992) reported that structural weakness of the supporting tissue is another potential mechanism in the pathogenesis of inguinal hernia. In contrast, Rao, et al., (2016) recorded that inguinal hernias have a predilection for right side, whereas (73.77%) had predominantly right-sided hernia. It has been documented that, people with inguinal hernia not only go through physical pains but also psychological traumas as well (Salih, 2008). Anecdotal evidence suggests that people living with the condition are usually ridiculed by the public. As a result of this individuals with the condition usually hide their condition and refuse to seek prompt treatment. The study revealed that most (30.4%) would rather inform a close relative about a disease. Although a substantial proportion (61.5%) said they would see a doctor the same day upon suspicion. Interestingly, about 37.2% would prefer to observe the condition for a while before seeking medical checkup and 27.8% would prefer to hide it completely. This is consistent with a study conducted by Salih (2008), where people with the condition were found to have a poor health seeking behavior. It was also revealed in this study 36 that majority (65.2%) would only seek medical attention within one month after discovering a lump in the groin area. In addition, Sule (2014) reported that most (28.7%) would rather inform a close relative about a disease upon suspicion. Garba, E. S.

(2000). The Patterns Of Adult External Abdominal Hernias In Zaria. Nig JSurg Res, 2(1):12-15.

Although a substantial proportion (34.5%) said they would see a doctor the same day, while about 23.4% would prefer to observe the condition for a while before seeking medical checkup and 5.3% would prefer to hide it completely. Either, this is consistent with a study conducted by Salih (2008), where people with the condition were found to have a poor health seeking behavior. It was also revealed in this study 36 that majority (65.2%) would only seek medical attention within one month after discovering a lump in the groin area.

In many developing countries, lack of awareness and financial constraints make many patients present very late with giant inguinoscrotal hernia which is a serious life threatening condition [23]. In this study, majority of the 64.5 respondents attributed the cause to hard work, (34.1%) for aging. Saul (2014) that reported that causes attributed to hereditary control (61.6%) and food/drink (52.7%). However, some studies have attributed risk of developing inguinal hernia and its complications mainly to overweight, older persons, history of hemorrhoids, smoking and hiatal hernia [23],[24]. Inadequate knowledge about the signs and symptoms of the condition has a devastating implication, not only with pain during strangulation but also puts more weight on health facilities during emergency. This situation could therefore be curtailed if the public is well sensitized about the nature of the disease.

Attitude is an internal or overt feeling or selective nature of intended behavior which represents the affective domain. The attitude towards inguinal hernia treatment was assessed to help better understand how people feel about the condition. The predominant reason revealed in this study ascribed to the cause of delay in early treatment was found to be fear of surgery (70.8%), followed by adverse effect of surgery (57.0%) and high hospital cost (75.5%). Fear of surgery as the cause of delay has the propensity to further complicate the condition especially when it reaches the stage of giant inguinoscrotal hernia, a precursor of hernia strangulation. Saul, (2014) reported that the predominant reason to the cause of delay in early treatment was fear of surgery (28.8%), adverse effect of surgery (25.4%) and high hospital cost (24.5%).

In conclusion, this study highlighted inadequate knowledge, inappropriate attitudes and practices towards inguinal hernia among Riyadh city. The findings of the research showed that about 29 (14%) had inguinal hernia. Inguinal hernia in our study attributed to females more than males at the middle and late ages. Inadequate knowledge about the causes, signs and symptoms of the condition were found.

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