INTRODUCTION
A novel coronavirus is a new strain of the infectious disease that was not previously identified in humans [1]. The virus that causes the disease first identified during an investigation into an outbreak in Wuhan, China [2]. Chinese Center for Disease Control and Prevention reported that a novel coronavirus is the causative agent of this outbreak. The disease associated with this virus is referred to as novel coronavirus disease 2019 (COVID-19) as COVID-19 [2,3]. It is an infection that causes disease in the respiratory system also can spread from person to person [4]. As per the alarming levels of spread and severity of this disease, the Director-General of the World Health Organization characterized the COVID-19 situation as a pandemic [5].

Epidemiological records in China revealed that up to 85% spread of infection from human-to-human has occurred in family clusters and that causes 2055 healthcare workers have become infected, with an absence of major nosocomial outbreaks, and some supporting evidence that some healthcare workers acquired infection in their families [6,7]. Close and unprotected exposure is required for transmission by direct contact or by contact with fomites in the immediate environment [8,9].

The Saudi Arabian Ministry of Health confirmed the first new coronavirus in March 2020. There are many (37% of the total population) foreign guest workers other residents from the Gulf countries, and the floating population participating in the Umrah program, which is also easier to spread of COVID-19 [10]. This disease must stop, contain, control, delay, and reduce the impact of this virus by the people at every opportunity. Everyone has a responsibility to understand the coronavirus disease and take measures to protect themselves and others. They should also maintain social distance and stay at home to prevent social transmission [11].

Viral shedding in patients with mild and more severe infections seems to be greatest during the early phase of disease [12]. These symptoms may appear 2–14 days after exposure depending upon the incubation period of Middle East respiratory syndrome coronaviruses [13]. The signs and symptoms of COVID-19 include fever, dry cough, and shortness of breath or difficulty breathing. Other symptoms can include tiredness, aches, runny nose, and sore throat [14]. The diagnosis will be performed by a conventional real-time polymerase chain reaction method. The best way to prevent illness is to avoid exposure of this virus. Each country should prepare to respond and assess its risk so that it implements the necessary measures on time to reduce COVID-19 transmission and to control the impacts of economics [15]. It is important to be aware of wash hands often with soap and water for at least 20 s, especially after you have been in a public place, or after blowing your nose, coughing, or sneezing, or using hand sanitizer that contains at least 60% alcohol, and avoid close contact with people who are sick, maintain distance between people to prevent COVID-19 spread in the community in this scenario [16,17]. Therefore, the study aims to assess the level of knowledge and attitudes toward preventing new coronavirus diseases among people and to associate the knowledge with selected demographic variables.

METHODS
Study design
Cross-sectional, descriptive design was adopted to assess the awareness level and the attitude of people regarding the prevention of novel COVID-19.
Setting
The study was conducted in the Eastern province region which has a population of 150,000. It is the major urban area, also known as an oasis in the Eastern province of Saudi Arabia.

Sampling
Initially, 1258 samples were selected in the Eastern province region using convenient sampling techniques. After obtaining informed consent, a total of 950 interested people who had willingness were included in the study. Ethical clearance obtained from the Institutional Review Board.

Data collection
The tool includes three parts. The first part consists of demographic variables including age, sex, educational status, occupation, nationality, place of residence, and source of health information. And the second part consists of the structured knowledge questionnaire regarding COVID-19, which was developed by researchers. The third part about attitude toward COVID-19 also developed by researcher.

Statistical methods
The collected information was entered in the excel sheet then transferred to Statistical Package for Social Sciences and analyzed in terms of both descriptive and inferential statistics.

RESULTS
The collected data were analyzed and tabulated for interpreting the results.

Demographic variables
The study findings showed that among 950 participants, most of them 314 (33.1%) were in the age group of 20–29 years and 284 (29.9%) were in the age group of 30–39 years. In the total study participants, 572 (60.2%) were females and the remaining 378 (39.8%) were males.

Regarding educational status, 405 (42.6%) were studied graduate level and others, 288 (30.3%), were studied up to higher secondary level. Among all the participants, 379 (39.9%) were involved in business for their occupation, 326 (34.3%) were private employees, and 128 (13.5%) were working under Government organization.

Regarding the nationalities of the participants, totally there were 486 (51.2%) Saudi and remaining 464 (48.8%) were non-Saudis such as Indian 164 (17.3%), Egyptian 142 (14.9), and Philippine 158 (16.6%).

The majority of the study participants, 769 (80.9%), were residing inside the Hofuf region and 181 (19.1%) were living in the surrounding area of the Hofuf region. About the sources of health information, 457 (48.1%) were receiving health information from mass media and 253 (26.6%) people received health information from healthcare workers and 142 (14.9%) were receiving from the family members.

The following Table 1 is showing that the number and frequency distribution of demographic variables of the study participants.

Knowledge level regarding COVID-19 prevention
The overall knowledge level score is interpreted in Table 2. Of the 950 participants, 499 (52.6%) were having poor knowledge, whereas 348 (36.6%) were having an average level of knowledge and 103 (10.8%) were having good knowledge.

The overall mean score and standard deviation of different level of knowledge regarding the prevention of COVID-19 were for good knowledge 81.4 and 4.77, for an average knowledge 62.73 and 7.04 and for poor knowledge 29.03 and 10.39, respectively. Table 3 is depicting the mean score and standard deviation of different level of knowledge about COVID-19 prevention.

Table 1: Frequency distribution of demographic variables

| S. No. | Demographic variables     | F (%) |
|--------|--------------------------|-------|
| 1.     | Age                      |       |
| 20–29 years | 314 (33.1)               |       |
| 30–39 years | 284 (29.9)               |       |
| 40–49 years | 236 (24.8)               |       |
| 50 and above | 116 (12.2)              |       |
| 2.     | Gender                   |       |
| Male   | 378 (39.8)               |       |
| Female | 572 (60.2)               |       |
| 3.     | Educational status       |       |
| Primary level | 32 (3.4)                |       |
| High school level | 225 (12.3)            |       |
| Higher secondary | 288 (30.3)            |       |
| College and others | 405 (42.6)         |       |
| 4.     | Occupation               |       |
| Unemployed | 117 (12.3)              |       |
| Government workers | 128 (13.5)            |       |
| Private workers | 326 (34.3)            |       |
| Business | 379 (39.9)               |       |
| 5.     | Nationality              |       |
| Saudi  | 486 (51.2)               |       |
| Indian | 164 (17.3)               |       |
| Egyptian | 142 (14.9)              |       |
| Philippine | 158 (16.6)             |       |
| 6.     | Place of residence       |       |
| Inside Hofuf area | 769 (80.9)            |       |
| Surroundings of Hofuf | 181 (19.1)            |       |
| 7.     | Sources of health information |       |
| Mass media | 457 (48.1)             |       |
| Family members | 142 (14.9)            |       |
| Friends | 98 (10.4)                |       |
| Healthcare workers | 253 (26.6)            |       |

Table 2: Knowledge level regarding coronavirus disease 2019

| S. No. | Knowledge Level | F (%) |
|--------|----------------|-------|
| 1.     | Good knowledge | 103 (10.8) |
| 2.     | Average knowledge | 348 (36.6) |
| 3.     | Poor knowledge | 499 (52.6) |

Table 3: Mean and standard deviation of knowledge level regarding coronavirus disease 2019

| S. NO. | Knowledge level | Mean score | SD |
|--------|----------------|------------|----|
| 1.     | Good knowledge | 81.40      | 4.77 |
| 2.     | Average knowledge | 62.73    | 7.04 |
| 3.     | Poor knowledge | 29.03      | 10.39 |

M: Mean; SD: Standard Deviation; n=950
Most of the participants, 916 (96.4%) participants, answered that the transmission of COVID-19 can be prevented by washing hands with soap frequently which shows their positive attitude. Furthermore, 622 (65.5%) people were answered “no” for the question, if the COVID-19 vaccine is available, will you ready to avail it. This shows that people have a negative attitude on vaccination for COVID-19 due to low knowledge. Among all, 659 (69.3%) people believed that stay at home helps to control the spread of COVID-19 and 512 (53.9%) told that wearing masks helpful to prevent the transmission of COVID-19. Around 40.7% had a negative attitude on the overall aspects of COVID-19 prevention (Table 4).

There was a statistically significant association between the educational status and source of health information with the knowledge regarding the prevention of novel coronavirus disease at p<0.01 and p<0.05, respectively.

DISCUSSION

Tracing the epidemiologic character of COVID-19 will provide an understanding of the immunity of the disease. It is important to know that, in any form of outbreaks of infectious diseases, the case-fatality ratio is usually incorrectly estimated at an early stage because the detection of morbidity will be biased [18]. Human behavior is influenced by people’s knowledge and attitude [19]. This community-based cross-sectional study was conducted to identify the awareness level by assessing the knowledge and attitude on the prevention of COVID-19. According to the present study, the results showed the overall knowledge about COVID-19 among the participants was low, as only 10.8% were showing good knowledge.

The systematic review and meta-analysis is evidenced that from the previous reports and study results, pre-existing hypertension, cardiovascular diseases, persons with chronic kidney diseases, and diabetes people are highly and severely affected with COVID-19 and their prognosis will be very poor [20].

Another online cross-sectional survey was conducted to assess the knowledge, attitudes, and practices toward COVID-19 among Chinese residents during the rapid rise of COVID-19. The study resulted that the mean knowledge score was 10.8 with a standard deviation score 1.6, range between 0 and 12, suggesting an overall 90% correct rate on this knowledge test which is supported by the present study [21]. In the current study, the mean score and standard deviation of knowledge level regarding COVID-19 were for good knowledge 81.4 and 4.77, for average knowledge 62.73 and 7.04 as well for poor knowledge 29.03 and 10.39, respectively.

The knowledge scores were significantly differed across genders, age groups, categories of marital status, education levels, and residence places (p<0.001) [21]. There was a statistically significant association between the educational status and the knowledge regarding the prevention of novel coronavirus disease at p<0.05. These findings of the demographic factors associated with knowledge toward COVID-19 are generally consistent with previous studies on COVID-19 [22-25].

The health promotion profession can lead this charge and advocate for a national public health social media campaign and other pragmatic measures that reach people most in need. This will help them to get accurate and timely information to prepare and reduce the risk to themselves, their families, friends, and their community [26-28].

This study has some limitations. First and foremost, the participants were selected by convenience, not by randomization. Hence, the study findings cannot be generalized. Second, the tool was translated into Arabic version for Arabic speakers and English version for non-Arabic speakers, which may have a bias in the results.

CONCLUSION

In general, most people need to have a correct understanding of COVID-19, especially in prevention and infection control measures. People attitude also needs to be changed toward positivity through arranging health campaigns by public health authorities and the media. In addition to that, the people focus their attention on prevention measures such as keep social distancing and avoid crowds in malls and parks. Stay at home methods are most effective during this pandemic situation.

AUTHORS’ CONTRIBUTIONS
Dr. Sahbanathul Missriya carried out the data collection and analyzing the results of the study, whereas Suhail Hassan reviewed the literature and wrote the manuscript. Both the authors read and approved the final version of the manuscript.

CONFLICTS OF INTEREST
The authors declare that they have no conflicts of interest in publishing this article.

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