

COVID-19 Cluster Investigations in Female Fitness Center, Muscat, Oman, February 2021

P2-G15

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A cluster of 19 COVID-19 cases was identified on 22/Feb/2021 among 334 members and employees in a female fitness center in Muscat governorate. The *index case* was on 14 February 2021. 57.89% of cases exposed to *aerobic classes*. 20% of cases that required admission *had comorbidities*. One young *obese patient with no comorbidities* required *critical care*.

BACKGROUND

- A cluster of COVID-19 occurred in a female fitness center in Muscat governorate from February 14–23, 2021.
- 19 confirmed cases of COVID-19 found in the cluster.
- All cases were recovered, and no death was reported.

Objectives:

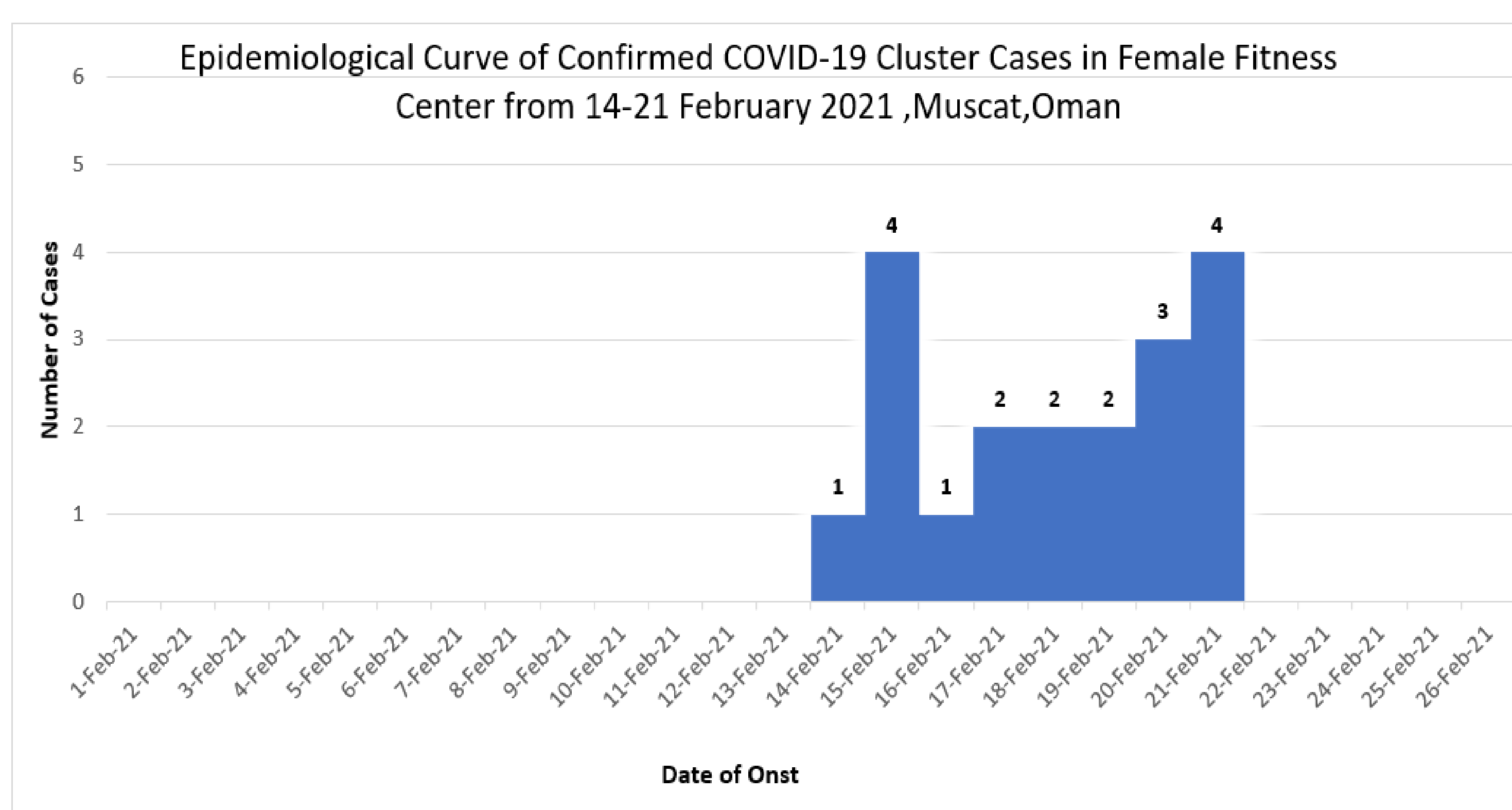
- To control the current and prevent future COVID-19 clusters and to understand the epidemiological features of the cluster.

METHODS

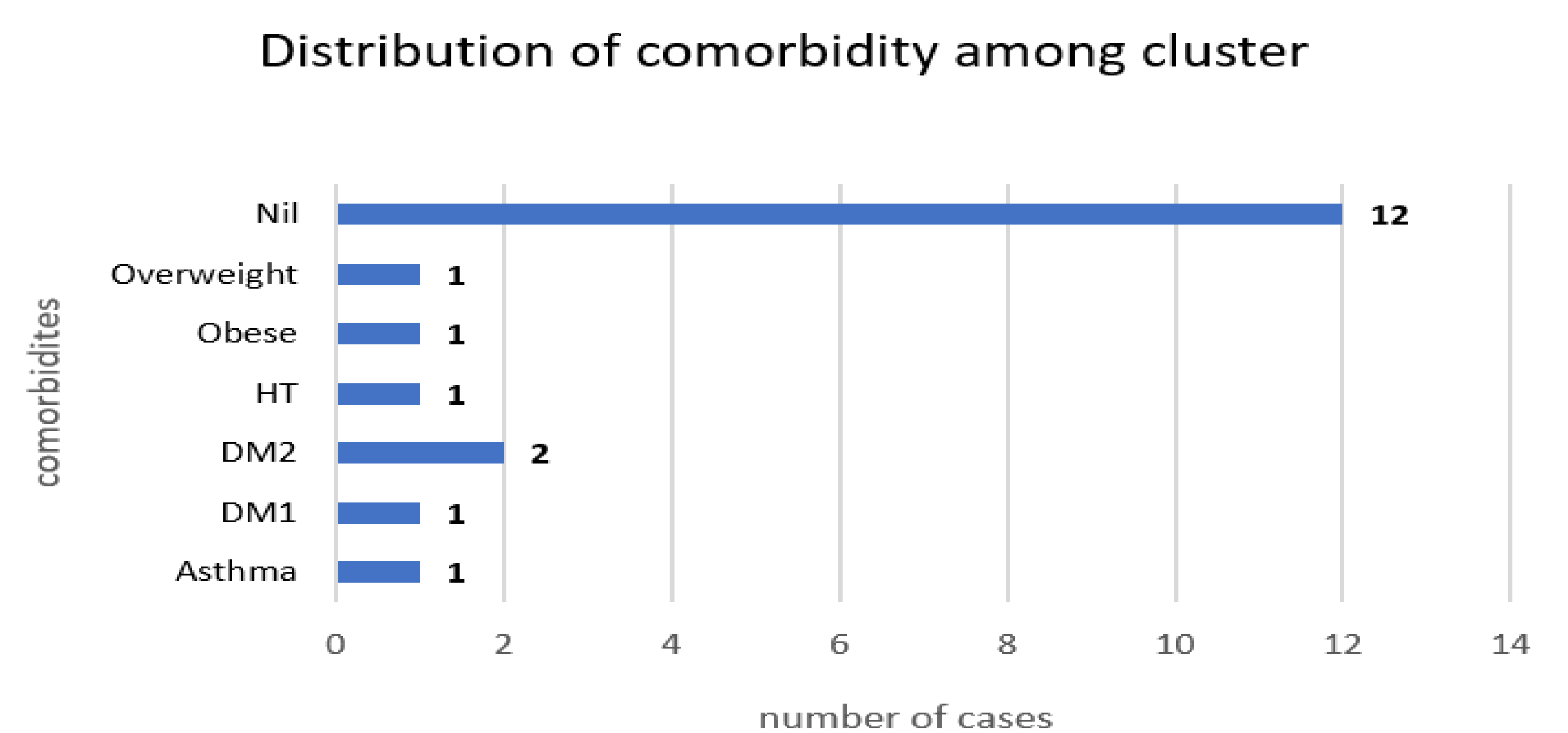
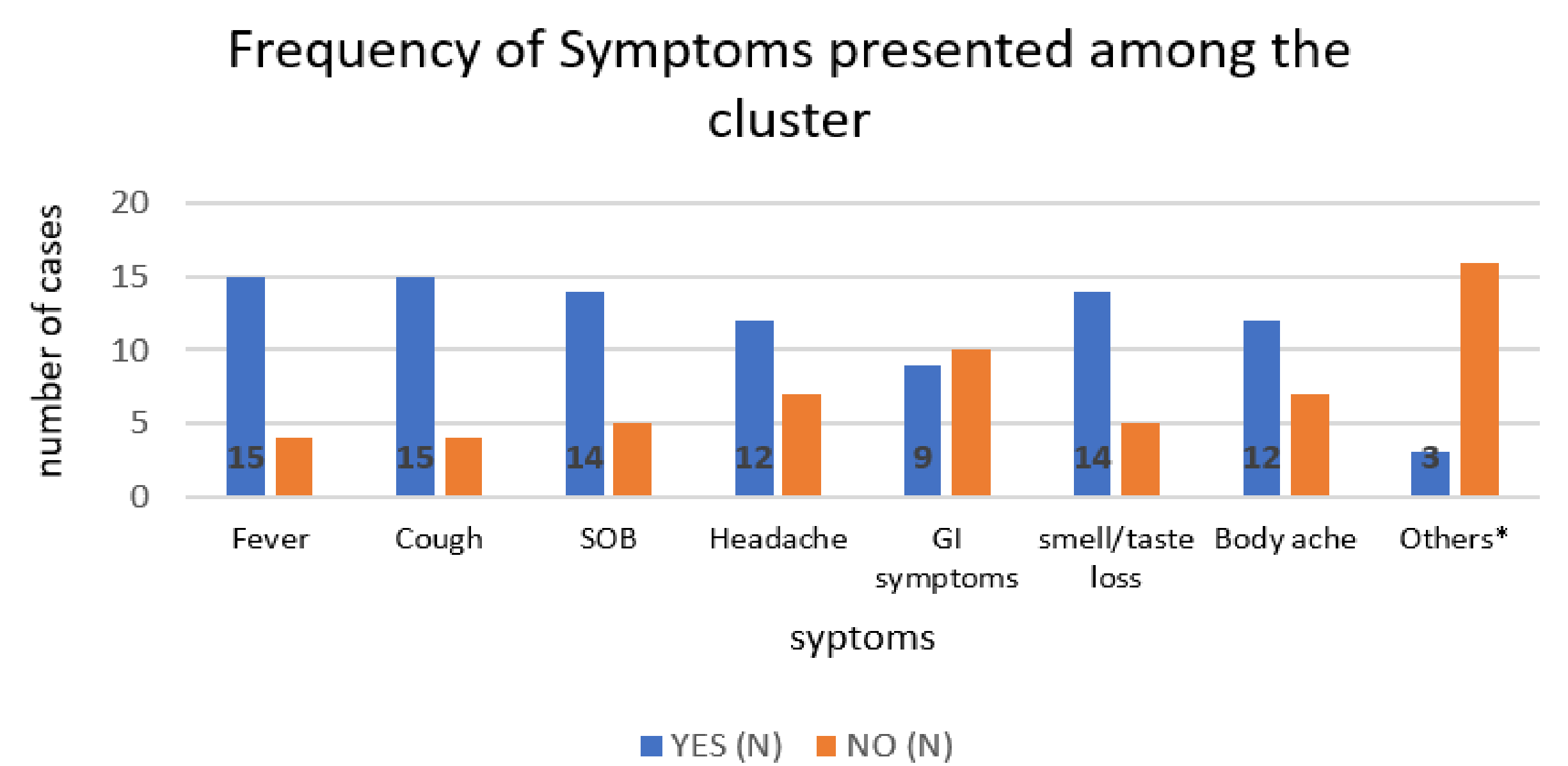
- Descriptive case series study for all confirmed COVID-19 cases using (RT-PCR) for the nasopharyngeal swabs.
- Data collected by COVID-19 questionnaire from all members and employees who attended the female fitness center in February 2021.
- Epidemiological and environmental investigations were conducted.
- Descriptive analysis was done using Microsoft Excel and SPSS (version 23).

RESULTS

- 19 (5.7%) COVID-19 cases were identified among 334 members and employees.
- The index case was an employee who came to work with symptoms for 3 days.
- The majority (73.6%) of the cluster cases ages ranged from 26 to 47 years old, and 89.5% were Omani.
- The existence of chronic diseases for 4 cases leads to hospitalization.
- There were two (10.5%) cases with DM type 2, one (5.3%) asthmatic and one (5.3%) DM type 1.
- One young obese case required admission to the ICU.
- Reported places of exposure were 57.89% to aerobic classes, 47.4% to cycling classes, and 42.1% to machine areas.
- All cases were recovered, and no death was reported.



RESULTS CONTINUED



CONCLUSIONS

- SARS-CoV-2 transmission due to weak adherence to prevention and control measures.
- Infrequent mask-wearing, intensive exercise with crowded trainers in a closed space, and inadequate ventilation attributed to transmission.
- The place closed to control the transmission and identify all contacts.
- Comorbidities increase the likelihood of hospitalization.

RECOMMENDATIONS

- Following the protection measures to control the spread of infection and avoid future infection.
- Proper ventilation and restricted number during the extensive exercises
- Encourage vaccination prior joining the fitness center.

ACKNOWLEDGEMENTS

