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Behaviour of occupational health services during the COVID-19 pandemic

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Abstract

Background Disasters, crises and pandemics are emergencies which impact on businesses severely. The COVID-19 pandemic reached its peak in mid-April 2020 in the UK. During this period, NHS Occupational Health Services (OHS) were stretched to their limit along with other health services. OHS may have had to change their pattern of operation, operating times, services offered, etc. to cope with the pandemic. Data about business model modifications, services offered by the OHS businesses during the pandemic could help in better utilization of OHS resources in the future.

Aims To understand the behaviour of OHS in different parts of the country during the COVID-19 pandemic.

Methods An online survey link was sent to both accredited and unaccredited UK Occupational Health Physicians (OHPs).

Results Sixty-two OHPs responded to the survey. In the current pandemic, 51% of the OHS (95% CI 0.38–0.62) offered weekend or out-of-hours (OOH) services, 21% had to employ extra staff (95% CI 0.13–0.33) and 54% had to change their working hours (95% CI 0.41–0.65). Ninety per cent of the OHS (95% CI 0.78–0.94) continued to offer routine services; however, there was a decline in offering vaccination services. Fifty-six per cent of the OHS (95% CI 0.42–0.67) offered a dedicated telephone line and 46% of the OHS (95% CI 0.32–0.56) started a dedicated COVID-19 queries inbox.

Conclusions There was a change in the behaviour of the OHS to cope with the pandemic. Having a dedicated helpline to manage the crisis situation seemed a logical step whilst offering routine services.

Key words COVID-19; occupational health services; occupational physicians; pandemic.

Introduction

Crises can appear as humanitarian disasters such as poverty, hunger or can be a consequence of various situations such as global warming or terrorism. A pandemic occurs when a disease spreads through multiple regions/continents.

Smallpox, Tuberculosis and Plague are some examples of pandemics in the past. The Spanish flu pandemic in 1918 infected over 500 million people with a case fatality rate of >2.5% [1]. The Swine flu pandemic in 2008–09 had a case fatality rate of <0.1% [2]. The case fatality rate for COVID-19 is currently estimated to be between 3 and 4% [3].

Businesses are not always prepared for crisis situations and there is a risk of collapse due to external factors. A survey of 50 pharmaceutical and biotech companies found 40 out of 50 companies did not have a preparedness plan to deal with pandemic situation [4]. Businesses may need to reconfigure, repair and seek government interventions [5].

OHS are a unique type of business and are in a unique position to undergo change to manage their services during a pandemic which pose a major risk to healthcare workers [6]. An understanding of the level of services offered by the OHS in the current pandemic will provide some evidence about the level of preparedness for the present situation, and how OHS rose to the challenge and will provide some useful information about how OHS should be improving for the future to face similar crisis situations.

Key learning points

What is already known about this subject:

- Pandemics can have a detrimental and long-lasting impact on the way businesses offer their services.
- Occupational Health Services have an important role in ensuring employees are fit to work in a pandemic situation.
- The current survey examined the hypothesis of whether and how Occupational Health Services modified their approach to cope with the pandemic.

What this study adds:

- A causal relationship is likely to exist between changes in Occupational Health Services business behaviours and crisis situation.
- Occupational Health Services offered out-of-hours services, weekend services, formed a dedicated helpline to cope with the crisis.
- Changes in services offered by Occupational Health Services to cope with the pandemic situation can play an important part in dealing with crisis situations.

What impact this may have on practice or policy:

- Innovation and evolution in Occupational Health Services is possible in crisis situations.
- It is important to plan for altered service provision in business continuity planning and future planning for pandemics.
- Occupational Health Services are flexible, responsive and adaptive enough to re-purpose themselves during national health emergencies.

Methods

A cross-sectional survey was undertaken during the peak of the COVID-19 pandemic in the UK over a period of 2 weeks from 4 April 2020. A survey link of 10 questions was e-mailed with an introductory message to several OHPs in the UK within our database, ANHOPS Northwest chapter and through personal communication to a number of OHPs. The hyperlink was also advertised on relevant social platforms such as Facebook and WhatsApp groups and the online version of Society of Occupational Medicine newsletter to reach maximum respondents. The cohort of OHPs consisted of accredited and unaccredited OHPs. Data were analysed using a spreadsheet programme. Annex 1 (available

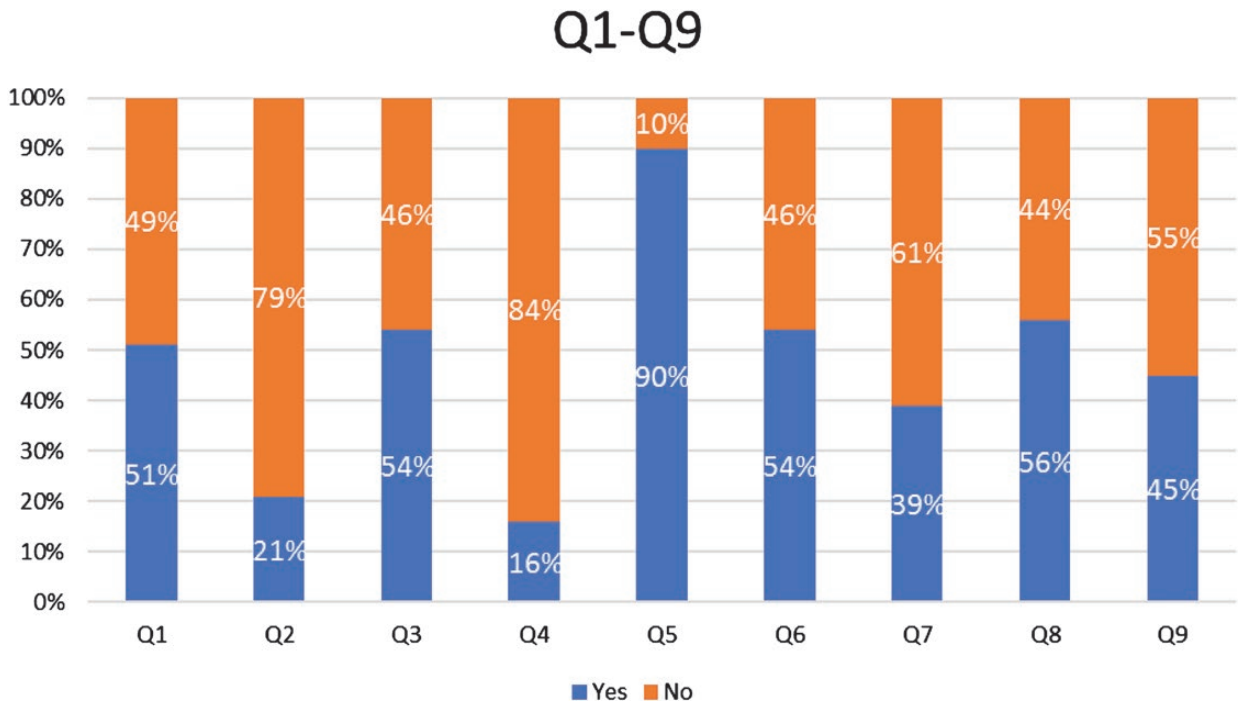

Figure 1. Cross-sectional survey responses.

as Supplementary data at *Occupational Medicine* Online) has details of the questions asked in the survey.

Results

Sixty-two OHPs responded to the survey. Data about geographical location of the OHPs were available in 57/62 responders. Sixty-three per cent of the responders were from England, 33% from Scotland and 2% each from Wales and Northern Ireland. Figure 1 illustrates the total survey responses. Fifty-four per cent of the OHS (95% CI 0.41–0.65) had changed their pattern of working and 51% of the OHS (95% CI 0.38–0.62) offered weekend and out-of-hours (OOH) services. Twenty-one per cent of the OHS (95% CI 0.13–0.33) employed extra staff and only 16% of the OHS received voluntary help to manage the workload in their department.

Ninety per cent of the OHS (95% CI 0.78–0.94) services continued to offer routine services such as management referrals; however, there was a decline in the vaccination clinic services. Sixty per cent of the OHS (95% CI 0.47–0.71) did not offer vaccination service. More urgent services such as review of active Occupational Dermatitis cases and needle stick injuries were offered by 54% of the OHS (95% CI 0.41–0.65) in the pandemic. Fifty-six per cent of the OHS (95% CI 0.42–0.67) offered a dedicated COVID-19 telephone helpline and 45% of the OHS (95% CI 0.32–0.56) set up a separate COVID-19 e-mail inbox dedicated to the pandemic queries.

Discussion

OHS have an important role in managing crisis situations whether they are physical, chemical or biological in nature. OHS play a key role in offering vaccination services, contact tracing and risk assessments amongst their other services. The responses in this survey from OHPs suggest that OHS modified their work pattern to deal with the workload in the COVID-19 pandemic by offering OOH and weekend services, employing extra staff, accepting voluntary help whilst they continued to offer regular OH services. This survey highlights that dedicated helplines can be one of the ways to manage the queries/workload generated in the pandemic situation.

Supporting employees and employers during crisis situations/pandemics has always been a part of the OHS business including the time of influenza pandemic in 2009 [7]. This survey suggests that OHS adapted and altered their service provision during the current pandemic situation.

A cross-sectional survey was considered an appropriate approach to measure the exposure (COVID-19) and outcome (change in business behaviour) in the planned time frame [8]. This survey was conducted at the peak of the COVID-19 pandemic to capture the changes in the services offered by OHS thus preventing a potential fading affect bias [9]. Although we were unable to derive a causal relationship between the exposure and outcome statistically, there is evidence from the survey responses that OHS behaviour has changed during the current pandemic to cope with the workload.

We are unable to comment on the response rate due to the logistic difficulty of not having a denominator for the survey. A good response rate would of course be helpful in avoiding sampling bias. However, a properly conducted survey is likely to give similar results to a long-timed survey as demonstrated by Keeter *et al.* in 2006 [10]. We think the lack of a denominator did not impact the survey outcome.

A well-defined cross-sectional survey in the future to determine if there is a statistically significant relationship between the COVID-19 pandemic and the behaviour of OHS would be a useful strategy to deal with future pandemic/medical crises. Also, a future survey in 3–6 months' time could provide information on long-lasting changes of COVID-19 such as increase in number of remote consultations, use of technology or establishment of new services as part of OHS.

In conclusion, this survey suggests that there could be a relationship between business behaviours in OHS and a crisis situation to cope with the workload. OHS can continue to play an important part in pandemics by developing focussed strategies such as development of helplines to answer queries whilst continuing business as usual. This cross-sectional survey could form a basis for future research to verify the above causal relationship hypothesis.

Competing interests

None declared.

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