Commentary

Exploring Risk Factors of Suicidal Behaviour among Medical Professionals in the UK: A Retrospective Analysis of Online News Portals

Abstract: Suicide is a significant global health burden. The demanding nature of the healthcare profession, combined with unique stressors and challenges, puts medical professionals at risk of mental health difficulties, including suicidal ideation and attempts. This study aims to investigate suicidal behaviour among medical professionals in the United Kingdom by reviewing online news portals and focusing on the risk factors associated with suicide. Seven online news portals from the UK were purposefully selected for the study, focusing on news reports of suicides among medical professionals. Only English online news portals were chosen, as English is the standard language in the country. Out of the 61 reports, 37.7 of the reported suicides were among males, and 62.3% were among females. The age distribution of the suicide reports revealed that the majority of the cases are within the 20-30 age range (42.6%). Mental health issues and fear of losing their job were also prominent reasons (24.6%). Suicide among healthcare professionals in the United Kingdom has drawn little attention. Suicide is more prevalent in early adulthood and among female professionals. Nurses, doctors, and junior doctors are more likely to commit suicide.

Keywords: Suicide; Health Professionals; Content analysis; Online Newspapers; Mental Health; Communications Media.

Introduction

Suicide is a significant global health burden. According to a World Health Organisation (WHO) report, more than 700,000 individuals die by suicide each year, with many more attempting to do so. Suicide occurred at any age and was the fourth highest cause of death among 15-29-year-olds worldwide in 2019 [1]. Every suicide is a tragic event that impacts families, communities, and entire countries, as well as the people who are left behind. Suicide risk was higher in specific occupational groups, particularly in medical-related occupations. Physicians and other health-care professionals, such as nurses, have been identified as a high-risk group for suicide in various countries, particularly among women [2].A study on occupation-specific suicide mortality in England from 2011 to 2015 revealed that low-skilled occupations such as construction workers, skilled trade workers, artists, bar staff, nurses, individuals in creative industries, and those in the entertainment sector are at the highest risk of suicide. Care professionals are also at a high risk of suicide, with a significant number of deaths. However, there was no indication of heightened risk in some occupations that were previously a cause for concern, such as male healthcare professionals and farmers[Windsor-shellard and Gunnell, 2019].

In 2018, there were around 6,507 suicides reported in the United Kingdom [3]. While the link between suicide and mental disorders is well established in high-income countries, many suicides occur impulsively in times of crisis, with a

breakdown in the ability to deal with life stresses such as financial difficulties, relationship break-ups, or chronic pain and illness.

The demanding nature of the healthcare profession, combined with unique stressors and challenges, puts medical professionals at risk of mental health difficulties, including suicidal ideation and attempts. This phenomenon has garnered increased attention in recent years, prompting a call for comprehensive research and intervention strategies to address the underlying factors contributing to suicidal behaviour among this specific occupational group.

Doctors in a variety of specialities often work under intense pressure. Patients, managers, professionalism, and structural concerns all contribute to these pressures. It is commonly known that doctors have a high prevalence of psychiatric problems and mental illness. Many studies have found that rates of depression, anxiety, and suicide in doctors are substantially greater than expected. Substance abuse and self-medication are frequent, and doctors are often hesitant to seek professional help for a variety of reasons. The first is the stigma associated with mental illness. Second, there is a widespread belief that doctors should be able to care for themselves and that needing assistance is a sign of weakness. Furthermore, there are no established protocols in many workplaces that encourage employees to seek treatment, with doctors particularly concerned about confidentiality issues and later involvement of regulatory bodies [4].

Doctors, nurses, and other healthcare providers face unique stressors related to their work, including long working hours, high patient volumes, limited resources, and the emotional burden of dealing with patient suffering and life-threatening situations [5]. These factors, along with concerns about career stability, professional burnout, and the stigma associated with mental health issues, can contribute to the development of mental health problems and increase the risk of suicide among medical professionals.

With its National Health Service (NHS) providing healthcare to the population, the UK presents a unique context for studying suicide among medical health professionals. While the UK has a well-established healthcare system, it has faced challenges related to workforce shortages, high workloads, and the impact of the COVID-19 pandemic [6]. These challenges may exacerbate the existing risk factors and potentially heighten the vulnerability of medical professionals to suicidal thoughts and behaviours.

To the best of our knowledge, no previous research has been undertaken in the United Kingdom on the risk factors associated with suicidal behaviour of medical professionals. This study aims to investigate suicidal behaviour among medical professionals in the United Kingdom by reviewing online news portals and focusing on the risk factors associated with suicide.

2. Research Aim & Objectives

This study aims to investigate suicidal behaviour among medical professionals in the United Kingdom by reviewing online news portals and focusing on the risk factors associated with suicide.

Objectives:

1. To identify the demographic characteristics of the medical professionals

2. To explore the risk factors associated with the suicide among medical professionals in the UK

3. Methods

3.1. Data Collection

Seven online news portals from the UK were purposefully selected for the study, focusing on news reports of suicides among medical professionals. Only English online news portals were chosen, as English is the standard language in the country. The selection of the portals was based on their popularity and circulation, determined through background research conducted by the authors. The search term "suicide news among medical professionals" was used to search for relevant news articles retrospectively. News portals were The Metro, The Sun, The daily Mail, The Daily Mirror, The Telegraph, The Independent and The Guardian. Online portals were preferred due to the availability of their content and the feasibility of conducting a retrospective analysis of suicide reports. Duplicate reports of the same suicide across different portals were eliminated. Duplicates were identified by comparing variables such as name, age, place of suicide, occupation, and other determining factors. If reports of the same suicide appeared in multiple portals, they were considered duplicates. After removing these repetitions, the final dataset was entered into the software for analysis. 61 reports were analysed using Statistical Package for Social Science (SPSS) version 28 and Microsoft Excel version 2018 software.

Table 1. Search Terms and News Portals.

Search terms	News portals
	Metro
“Suicide news among doctors”	The Sun
“Suicide news among nurses”	Daily Mail
“Suicide news among dentists”	Daily Mirror
“Suicide news among physiotherapists”	The Telegraph
“Suicide news among paramedics”	The Independent
	The Guardian

3.2. Inclusion of News

News articles indicating suicides among medical professionals in the UK, and those limited to the geographic area of the UK, were considered for inclusion.

The inclusion criteria focused on news articles reporting suicides among medical professionals in the UK, sourced from English online news portals and published between January 2012 and April 2023. The exclusion criteria state that articles on suicide among individuals other than medical professionals, news from countries outside the UK, and articles from non-English online news portals or those published before 2012 are excluded.

Table 2. Inclusion and Exclusion Criteria.

Included	Excluded

News articles clearly indicating suicides among medical professionals.	News articles on suicide among others.
News articles limited to the geographic area of the UK.	Excluded news from other countries.
Only English online news portals were included.	Other language online news portals are excluded.
News articles published between Jan 2012 – April 2023.	News published before 2012.

3.3. Variables

The study considered age, gender, publication date, known reasons for suicide, any health issues, mental health issues, previous suicide attempts, ongoing family issues, location of suicide as variables.

3.4. Ethical Aspects

Since the data analysed consisted of previously published online information, no formal ethical clearance was considered.

4. Results

Table 3. Demographic distribution of the respondents mentioned in the 7 UK online news portals (n=61).

Demographic variables	Frequencies	Percentage
Gender		
Male	23	37.7
Female	38	62.3
Age		
20-30	26	42.6
31-40	11	18.0
41-50	12	19.7
Over 51	10	16.4
Profession		
Junior Doctor	14	23.0
Doctor	15	24.6
Nurse	26	42.6
Dentist	02	3.3
Physiotherapist	01	1.6
Paramedic	03	4.9
Location		
England	49	80.3
Wales	5	8.2
Scotland	4	6.6

4.1. Demographic Characteristics

Sixty-one medical professionals suicide reports were found from 2012 January to 2023 April in the assigned news portals. Out of the 61 reports, 37.7% of the reported suicides were among males, and 62.3% were among females. The age distribution of the suicide reports revealed that the majority of the cases are within the 20-30 age range (42.6%), followed by 41-50 years (19.7%), 31-40 years

(18.0%), and over 51 years (16.4%). Regarding the profession, nurses constituted the largest group (42.6%) died by suicide, followed by doctors (24.6%), junior doctors (23.0%), paramedics (4.9%), dentists (3.3%), and physiotherapists (1.6%) were also reported. In terms of location, the majority of reported cases were from England (80.3%), while smaller proportions were from Wales (8.2%) and Scotland (6.6%).

Table 4. Suicide variables of the respondents (n=61).

Suicide variables	Frequencies	Percentage
Reasons for suicide		
Work related pressure, stress and anxiety	17	27.9
Mental health issues / fear of losing job	15	24.6
Health issues	03	4.9
Covid-19 related stress and pressure	08	13.1
Bullying / felt bullied	05	8.2
Sudden death	02	3.3
Relationship / financial issues and abuse	04	6.6
Complaints and other issues	04	6.6
Not known	03	4.9
Any mental health issues		
Yes	34	55.7
No	27	44.3
Any Health issues		
Yes	10	16.4
No	51	83.6
Previous suicide attempts		
Yes	12	19.7
No	49	80.3
Ongoing family or relationship issues		
Yes	15	24.6
No	46	75.4

4.2. Key Suicide Variables

4.2.1. Reasons for Suicide:

When explored the reasons for suicide among medical professionals, the most frequently reported factors included work-related pressure, stress, and anxiety (27.9%). Mental health issues and fear of losing their job were also prominent reasons (24.6%). Other factors contributing to suicide were health issues (4.9%), Covid-19-related stress and pressure (13.1%), bullying or feeling bullied (8.2%), sudden death (3.3%), relationship, financial issues, and abuse (6.6%), and complaints and other issues (6.6%).

4.2.2. Mental Health and Health Issues:

More than half of the suicide cases reported having mental health issues (55.7%), while the remaining instances indicated the absence of such problems (44.3%). Regarding health issues, a minority of medical professional's suicide reports state that they are experiencing health problems (16.4%), while the majority reported no health issues (83.6%).

4.2.3. Previous Suicide Attempts:

Around 19.7% of the suicide cases reported having made previous suicide attempts, whereas the majority had not attempted suicide previously (80.3%).

4.2.4. Ongoing Family or Relationship Issues:

When identified for ongoing family or relationship issues, 24.6% of the suicide cases reported experiencing such challenges, while the majority indicated the absence of such problems (75.4%).

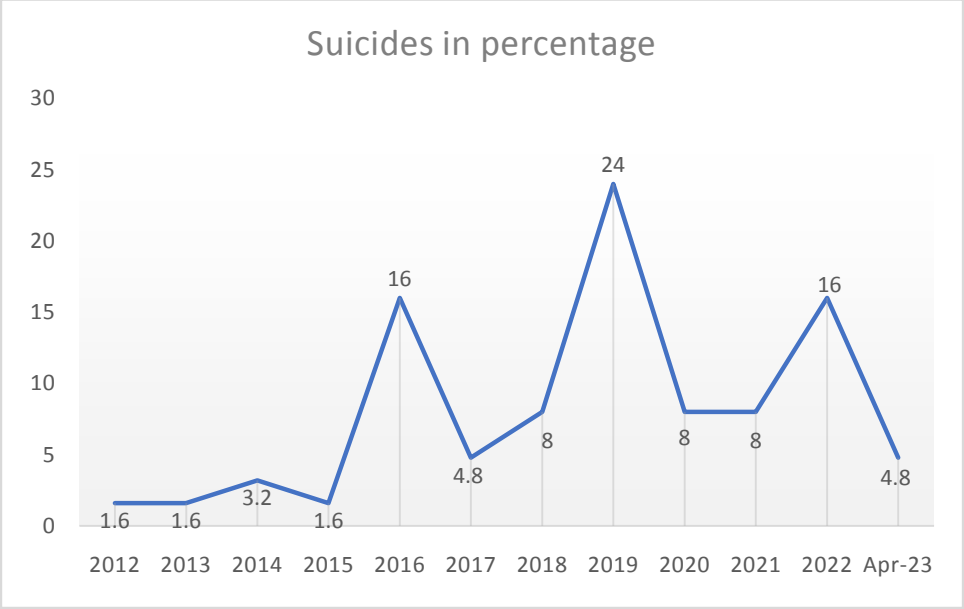

Figure 1. Trend of suicides among medical health professionals from 2012 January to 2023 April.

4.2.5. Trend in suicide rates

From 2012 January to 2023 April, the highest number of suicides cases were reported in the year 2019 with 24% of suicides, followed by the years 2016 (16%) and 2022 (16%). However, in the present year 2023 from January to April, 4.8% of the suicide cases were reported so far.

Table 5. Background characteristics and Health issues of the participants and previous suicide attempts.

Background characteristics and Health issues of the participants	**Previous suicide attempts**
Age	
20-30	8.5%
31-40	1.7%
41-50	5.1%
Over 51	5.1%
Gender	
Male	6.6%
Female	13.1%

Profession	
Junior Doctor	3.3%
Doctor	1.6%
Nurse	13.1%
Dentist	0.0%
Physiotherapist	1.6%
Paramedic	0.0%
Location	
England	16.4%
Wales	1.6%
Scotland	0.0%
Any health issues	
Yes	3.3%
No	16.4%
Any mental health issues	
Yes	18%
No	1.6%
Ongoing family issues	
Yes	8.2%
No	11.5%

Medical professionals between the ages of 20 and 30 and those over the age of 51 have the highest rates of previous suicide attempts, at 8.5% and 5.1%, respectively. Females have a significantly higher percentage of prior suicide attempts (13.1%) than males (6.6%). Among the medical professions, nurses had the highest rate of prior suicide attempts (13.1%), whereas dentists and paramedics reported no previous suicide attempts. Previous suicide attempts are reported by a much higher number of people in England (16.4%) than in Wales (1.6%) and Scotland (0.0%). When compared to individuals with health concerns, medical professionals with no health issues have a significantly greater incidence of previous suicide attempts (16.4%). Professionals with mental health issues had a much more significant percentage of prior suicide attempts (18.0%) when compared to individuals without such concerns.

5. Discussion

This study aimed to investigate the contributing risk factors of suicide among medical health professionals in the UK. The findings of this study align with existing literature, highlighting the heightened risk of suicide within this occupational group [7]. The demanding nature of the healthcare profession, characterized by long working hours, high stress levels, and exposure to traumatic events, can significantly impact the mental health and well-being of healthcare providers [5][8]. Both sexes among nurses and female medical practitioners had substantially higher rates of suicide than education professionals. Depression was more likely in medical physicians who died by suicide than in nurses, educators, and others. Work-related issues were most common among medical doctors (18.5%) [9]. According to another survey, females were more likely than males to attempt suicide and have suicidal thoughts. Overall, the survey revealed that compared to Australians in other professions and the gen-

eral public, medical professionals reported much higher rates of suicidal ideation and attempted suicide [10].

This study also found that work-related pressure, stress, and anxiety were prominent reasons for suicide among medical professionals. A multinational, multicentre investigation discovered a significant association between adverse psychological outcomes and physical symptoms reported by healthcare workers during the current COVID-19 pandemic [11]. This aligns with previous research that has identified the unique stressors faced by healthcare providers, including the emotional burden of patient care, decision-making in life-or-death situations, and navigating complex healthcare systems [5][12]. The sources of work stress can also vary depending on the speciality; for instance, doctors in the fields of oncology, emergency medicine, and mental health report being highly stressed by a lack of resources, while those in the fields of paediatrics and rural/remote report being highly stressed by long workdays [10]. Additionally, studies show that doctors who are the subject of complaints or are being reviewed are more likely to experience feelings of depression, anxiety, and suicidal thoughts, indicating that medical professionals involved in such processes need additional support [13][14]. The results suggest that interventions and support systems need to focus on reducing work-related stress and fostering a healthy work environment to mitigate the risk of suicide among medical professionals.

This study shows that 8.2% of the suicide cases reported the experience of bullying/feeling bullied. According to another study [15], bullying and discrimination might raise the risk of depression and suicide, as well as stress and burnout. Certain groups may suffer bullying and discrimination more frequently than others. For instance, the Beyondblue survey indicated that overseas-trained and indigenous doctors were more likely to report feeling "very stressed" by racism and bullying [10]. Even though this association is well-established in the general population, there is a lack of substantial study evidence indicating the prevalence of bullying within the medical profession.

This study revealed that a considerable proportion (24.6%) of medical professionals are experiencing ongoing family or relationship issues. This finding is in line with existing research that has linked interpersonal difficulties, such as marital problems or conflicts with family members, to increased suicide risk [5]. Addressing these family and relationship issues within and outside the workplace is crucial to providing comprehensive support for medical professionals and reducing their vulnerability to suicide.

A review of suicidal behaviour during the COVID-19 pandemic indicates that various factors such as economic downturn, psychiatric vulnerability, social isolation, quarantine, health anxieties, and relationship challenges significantly influence the development of suicidal behaviours (Barberis et al., 2022).Notably, the COVID-19 pandemic has posed additional challenges for medical professionals, potentially exacerbating the risk of suicide. The strain on healthcare systems, increased workloads, heightened anxiety, and fear of infection have all contributed to the mental health burden experienced by healthcare providers [6]. Another study reports 55.7% of mental health issues among medical health professionals, higher than the general population (40.4%) [16].

Suicide is a significant public health issue that requires comprehensive attention, including dedicated awareness campaigns. A study has shown that mass media can be a potent tool for combating the stigma associated with suicidal-thoughts and mental illness. Recent research has shown that news articles that reflect responsibly on how individuals handle crises may have a positive impact on preventing suicide, known as the Papageno effect (Niederkrotenthaleret al., 2014).

Since only seven online news portals were examined between January 2012 and April 2023, the study's findings may provide a static picture of suicide variables in news reporting aspects. Still, to the best of the authors' knowledge, it is the first online news analysis on suicide among medical health professionals in the UK. The authors evaluated published online news portals for data, hence the source is not precisely scientific. More widespread research would help fill the vast data gap in suicide research among medical health professionals in the UK. While this study did not specifically focus on the impact of the pandemic, it is essential to acknowledge its influence and consider its implications in future research and intervention efforts. Further research might strengthen the investigation of suicide risk factors. Implementing screening programmes at a clinical level could be beneficial for prevention (Pruneti, Fiduccia, and Guidotti, 2023).

5.1. Strengths and Limitations

First online news analysis on suicide among medical health professionals in the UK. This content analysis can help raise awareness of the necessity of mental health support to medical professionals. The possible limitations are that the sources of data are not precisely scientific, and this study did not specifically focus on the impact of the pandemic.

6. Conclusion

Suicide among healthcare professionals in the United Kingdom has drawn little attention. Suicide is more prevalent in early adulthood and among female professionals. Nurses, doctors, and junior doctors are more likely to commit suicide. Work-related stress, anxiety, mental health issues/fear of losing a job, ongoing family or relationship issues, and COVID-19-related stress and pressure were identified as risk factors that must be addressed cautiously. Appropriate services for those in distress and those with new or current mental illness must be made available.

Responsible media reporting can also raise awareness of the necessity of mental health support by directing medical health professionals to resources, sharing stories of hope and recovery, and avoiding alarmist and speculative headlines that may increase the risk of suicide. Suicide is a preventable public health issue, and steps must be taken to safeguard health professionals' mental health. A wide range of research would be required to adequately identify the situation and take the necessary steps to prevent it.

References

1. World Health Organization. Suicide Key Facts 2021. Suicide (who.int) (accessed June 24, 2023).

2. Dutheil F, Aubert C, Pereira B, Dambrun M, Moustafa F, Mermillod M, et al. Suicide among physicians and health-care workers: A systematic review and meta-analysis. PLoS One 2019;14:e0226361. https://doi.org/10.1371/journal.pone.0226361.
3. Office for National Statistics. Suicides in the UK: 2018 Registrations. 2019. Suicides in the UK - Office for National Statistics (ons.gov.uk) (accessed June 24, 2023).
4. Ventriglio A, Watson C, Bhugra D. Suicide among doctors: A narrative review. Indian J Psychiatry 2020;62:114. https://doi.org/10.4103/psychiatry.IndianJPsychiatry_767_19.
5. Milner A, Witt K, LaMontagne AD, Niedhammer I. Psychosocial job stressors and suicidality: a meta-analysis and systematic review. Occup Environ Med 2018;75:245. https://doi.org/10.1136/oemed-2017-104531.
6. British Medical Association. Delivery of healthcare during the pandemic BMA Covid Review 3. n.d.
7. Hawton K. Suicide in doctors while under fitness to practise investigation. BMJ 2015;350:h813–h813. https://doi.org/10.1136/bmj.h813.
8. Schernhammer ES, Colditz GA. Suicide Rates Among Physicians: A Quantitative and Gender Assessment (Meta-Analysis). American Journal of Psychiatry 2004;161:2295–302. https://doi.org/10.1176/appi.ajp.161.12.2295.
9. Kõlves K, De Leo D. Suicide in Medical Doctors and Nurses. Journal of Nervous & Mental Disease 2013;201:987–90. https://doi.org/10.1097/NMD.0000000000000047.
10. Lawrence, D., Wu, F., Ireland, M. and Hafekost, K., 2013. National mental health survey of doctors and medical students. Beyond Blue.
11. Chew NWS, Lee GKH, Tan BYQ, Jing M, Goh Y, Ngiam NJH, et al. A multinational, multicentre study on the psychological outcomes and associated physical symptoms amongst healthcare workers during COVID-19 outbreak. Brain Behav Immun 2020;88:559–65. https://doi.org/10.1016/j.bbi.2020.04.049.
12. Chew Q, Wei K, Vasoo S, Chua H, Sim K. Narrative synthesis of psychological and coping responses towards emerging infectious disease outbreaks in the general population: practical considerations for the COVID-19 pandemic. Singapore Med J 2020;61:350–6. https://doi.org/10.11622/smedj.2020046.
13. Bourne, T., Wynants, L., Peters, M., Van Audenhove, C., Timmerman, D., Van Calster, B. and Jalmbrant, M., 2015. The impact of complaints procedures on the welfare, health and clinical practise of 7926 doctors in the UK: a cross-sectional survey. BMJ open, 5(1), p.e006687.
14. Horsfall, S., 2014. Doctors who commit suicide while under GMC fitness to practise investigation. General Medical Council.
15. Kivimäki, M., Virtanen, M., Vartia, M., Elovainio, M., Vahtera, J. and Keltikangas-Järvinen, L., 2003. Workplace bullying and the risk of cardiovascular disease and depression. Occupational and environmental medicine, 60(10), pp.779-783.
16. Vinnakota D, Parsa AD, Arafat SMY, Sivasubramanian M, Kabir R. COVID-19 and risk factors of suicidal behavior in UK: A content analysis of online newspaper. J Affect Disord Rep 2021;4:100142. https://doi.org/10.1016/j.jadr.2021.100142.
17. Windsor-Shellard, B. and Gunnell, D., 2019. Occupation-specific suicide risk in England: 2011–2015. *The British Journal of Psychiatry*, *215*(4), pp.594-599.
18. Pruneti, C., Fiduccia, A. and Guidotti, S., 2023. Electrodermal activity moderates the relationship between depression and suicidal ideation in a group of patients with anxiety and depressive symptoms. *Journal of Affective Disorders Reports*, *14*, p.100673.
19. Barberis, N., Cannavò, M., Cuzzocrea, F. and Verrastro, V., 2022. Suicidal behaviours during COVID-19 pandemic: A review. *Clinical Neuropsychiatry*, *19*(2), p.84.
20. Niederkrotenthaler, T., Reidenberg, D.J., Till, B. and Gould, M.S., 2014. Increasing help-seeking and referrals for individuals at risk for suicide by decreasing stigma: the role of mass media. *American journal of preventive medicine*, *47*(3), pp.S235-S243.