Archives of Suicide Research

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/usui20

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To cite this article: Annette Erlangsen, Murad Khan, Wen Su, Khawlah Alateeq, Fatma Charfi, Trine Madsen, Ping Qin, Britt Reuter Morthorst, Morten Thomsen, Aiysha Malik, Piumee Bandara, Alexandra Fleischmann & Khalid Saeed (14 Oct 2023): Situation Analysis of Suicide and Self-Harm in the WHO Eastern Mediterranean Region, Archives of Suicide Research, DOI: 10.1080/13811118.2023.2262532

To link to this article: https://doi.org/10.1080/13811118.2023.2262532

Published online: 14 Oct 2023.

ARCHIVES OF SUICIDE RESEARCH
https://doi.org/10.1080/13811118.2023.2262532

Routledge
Taylor & Francis Group

REVIEW ARTICLE

Situation Analysis of Suicide and Self-Harm in the WHO Eastern Mediterranean Region

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ABSTRACT

Objective: An estimated 41,000 lives are lost to suicide each year in World Health Organization Eastern Mediterranean Region Office (WHO EMRO) countries. The objective of this study was to conduct a situation analysis for suicide and self-harm in the WHO EMRO region.

Methods: Data on suicide were obtained from the WHO Global Health Estimates for the years 2000–2019. Information on risk groups efforts to prevent self-harm and suicide in the EMRO region were retrieved through scientific studies, grey literature, and public websites.

Results: During 2000–2019, the age-standardized suicide rate was 6.7 per 100,000 inhabitants, albeit there are concerns regarding data quality. Self-harm and suicide remain criminal acts in more than half of the countries. Few countries have a national plan for prevention of suicide. Toxic agents, such as pesticides and black henna, are easily available and frequently used for suicide in some areas, as are firearms and self-immolation. Successful prevention measures include means restriction and psychosocial interventions after self-harm.

Conclusion: Many WHO EMRO countries remain underserved in terms of mental health care. Decriminalization of suicide and means restriction might be further promoted. Online-based tools for mental health literacy and psychosocial therapy are other options to explore.

KEYWORDS

Eastern Mediterranean Region; suicide; suicide attempt

HIGHLIGHTS

- Suicidal behavior remains a criminal act in more than half of the WHO EMRO countries.
- Easily available toxic agents, such as pesticides and black henna, and firearms are common methods used for suicidal behavior in the WHO EMRO countries.
- Access to mental health care is limited in many of the WHO EMRO countries.
- Online-based psychoeducation and psychosocial intervention programs might be further explored as preventive efforts.

INTRODUCTION

Each suicide death is a tragedy that extends far beyond the individual. The United Nations Sustainable Development Goals sets, with goal 3.4.2, a target of reducing the number of suicide deaths by 33% by 2030 (United Nations, 2015). The World Health

Organization (WHO) recommends that countries develop a national strategy for suicide prevention in their LIVE LIFE guide (World Health Organization [WHO], 2021a).

More than 41,000 people die by suicide each year in the WHO Eastern Mediterranean Region Office (WHO EMRO) countries (World Health Organization [WHO], 2020a). These consist of: Afghanistan, Bahrain, Djibouti, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Occupied Palestinian territory, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syrian Arab Republic, Tunisia, the United Arab Emirates, and Yemen. Arabic is spoken in most countries and Islam is the dominant religion of the region. Despite economic growth, large shares of the population are living in impoverished or rural settings and with limited or no access to mental health care (Rezaeian & Khan, 2020). In addition to the COVID-19 pandemic, the region has been exposed to natural disasters, famine, wars, and political unrest in recent decades; several of these factors have been linked to suicidal outcomes (Favril et al., 2020; Pirkis et al., 2022; Rezaeian & Khan, 2020).

The aim of this review was to conduct a situation analysis based on existing evidence and to identify the main challenges and opportunities for suicide and self-harm in the WHO EMRO region. Much new research has been conducted in the region over recent years, and a situation analysis can help identify areas which should be prioritized (WHO, 2021a). This review provided a summary of a situation analysis of suicide and self-harm in this region, which was commissioned by the WHO (Danish Research Institute for Suicide Prevention, 2022). It consisted of an epidemiological assessment of trends in suicide rate and methods; an evaluation of relevant topics, such as legislation of suicide and national plans; and an overview regarding evidence of effective interventions.

MATERIALS AND METHODS

The review followed the general outline of the WHO's LIVE LIFE guide (WHO, 2021a).

Data on suicide deaths and age-standardized suicide rates per 100,000 population for the years 2000–2019 were obtained from the WHO Global Health Estimates 2019 (WHO, 2020a). Estimates were based on official government figures when available but not all countries collected vital statistics on suicide. A detailed account of the data may be found elsewhere (Danish Research Institute for Suicide Prevention, 2022).

Information regarding high-risk groups, legislation, monitoring and suicide preventive measures were derived from peer-reviewed scientific studies, grey literature, and public websites, such as the Ministry of Health and the National Board of Health in the WHO EMRO countries. Scientific evidence was identified by searching Pubmed and Google Scholar as well as reference lists of identified literature. The search was restricted to studies published in English for the years 2000–2021 concerning the WHO EMRO countries.

Data on national efforts were also retrieved from the 2020 version of the WHO Mental Health Atlas (World Health Organization [WHO], 2021b). We focused on following key intervention areas, which have been identified by WHO as effective: (1) means restriction, (2) media reporting, (3) promotion of socio-emotional life skills in young people, and (4) early identification, management and follow-up (WHO, 2021a).

The geographical distribution of suicide deaths was examined. Trends in national, age-standardized suicide rates per 100,000 population were assessed separately for males and females.

Information from scientific studies and grey literature was reviewed and summarized with respect to high-risk groups, the legislative status of suicide, monitoring of self-harm, and national efforts. Due to the lack of national surveillance systems, information on suicide methods was derived from scientific, peer-reviewed publications. Methods of suicide were identified as constituting a *severe problem* if they were reported in several studies and/or identified as a problem in large areas of the country; of *some concern* when they were reported by single studies and/or or as a problem of lower prevalence in some parts of the country; or *not a concern* when they were considered as being infrequently occurring.

Information regarding available services was obtained from the identified literature, the Mental Health Atlas (World Health Organization [WHO], 2017), and through country focal points, identified through collaborators from WHO.

RESULTS

Epidemiological Analysis

Based on findings from the WHO, an estimated 41,672 lives were lost to suicide each year in the EMRO region during the period of 2000–2019. Of these, 30,703 (74%) were among males and 10,969 (26%) among females. The majority of suicide deaths occurred in the most populated countries, namely Pakistan, followed by Iran and Egypt (Figure 1).

The overall age-standardized suicide rate for the EMRO countries was estimated to be 6.4 per 100,000 population, resulting in a female to male sex ratio of 1:2.6. The highest overall rate was identified in Somalia with 14.7 suicide deaths per 100,000 population, followed by Djibouti and Pakistan with a rate of 11.9 and 9.8, respectively. The overall rate decreased by 7.6%, with largest reductions observed in Jordan, Qatar, and the United Arab Emirates between 2000 and 2019, while an increasing trend was found for Saudi Arabia. Around 66% of the regional residents lived in low- and lower middle–income countries, while these countries accounted for 77% of all suicide deaths.

The overall age-standardized suicide rate for males was 9.1 per 100,000 population. The highest age-standardized rate for males was found in Somalia with 22.8, while rates of 16.3 and 14.6, respectively, were reported in Djibouti and Pakistan (Figure 2). The overall age-standardized suicide rate for females was 3.5 per 100,000 population, highest in Djibouti with 7.6, followed by rates of 7.1 and 5.7 in Somalia and Afghanistan, respectively (Figure 3). A 22.2% decrease was observed in the overall rate for females, from 4.1 per 100,000 in 2000 to 3.2 in 2019. The largest reductions during the 20-year period were observed in Afghanistan, Iran, and Morocco.

Suicide Methods

A systematic review of data from eight countries (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Pakistan, and Saudia Arabia) estimated the following distribution of suicide

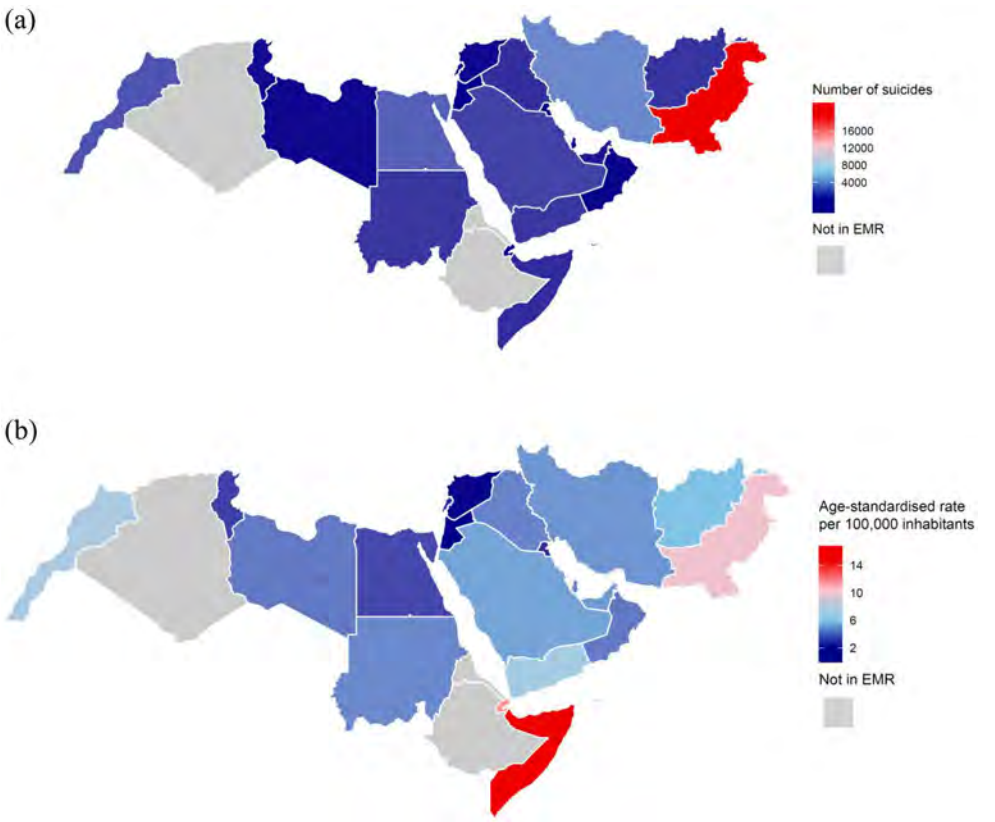

FIGURE 1. Number of suicide deaths (a) and age-standardized suicide rates (b) in the EMRO by country.
Data from the Occupied Palestinian territory was unavailable.

methods: hanging (39.7%), pesticide poisoning (20.3%), self-immolation (17.4%), firearms (7%), drowning (3.1%), drug overdose (2.5%), and jumping (0.8%) (Morovatdar et al., 2013).

Review of Risk Factors

A history of mental disorders, especially depression, or self-harm was found to be present more frequently among individuals with suicidal behavior when compared to the background population (Ben Khelil et al., 2016; Khan et al., 2008; Shooshtary et al., 2008; Zaidan et al., 2002). Access to mental health care is limited in many EMRO countries and, consequently, the prevalence of mental disorders might be underreported (WHO, 2021b). In addition, family history of mental disorder has been noted as a contributing factor among young people with suicidal behavior (Ben Khelil et al., 2021; Shooshtary et al., 2008). On the other hand, mental well-being has been suggested as a protective factor (Akram et al., 2018).

Evidence suggest that being married might constitute a risk factor for women, largely as a result of a patriarchal culture (Khan et al., 2008; Shekhani et al., 2018). Family conflicts, intergenerational problems, abuse, domestic violence, and infertility have been

mentioned as reasons for suicidal behavior in young and adult women (Cleary et al., 2021; Fido & Zahid, 2004; Rezaeian & Khan, 2020; Shooshtary et al., 2008; Suhrabi et al., 2012). Other vulnerable groups include migrant workers, refugees, and sexual-orientation and gender-identity minorities (Al-Waheeb et al., 2020; Nematollahi et al., 2022; Rahman & Hafeez, 2003).

Recent evidence from the Kerman province in Iran indicates an increase in the number of suicides during the first 15 months of the COVID-19 pandemic (Pirkis et al., 2022). It is plausible that individuals exposed to economic difficulties or who experience

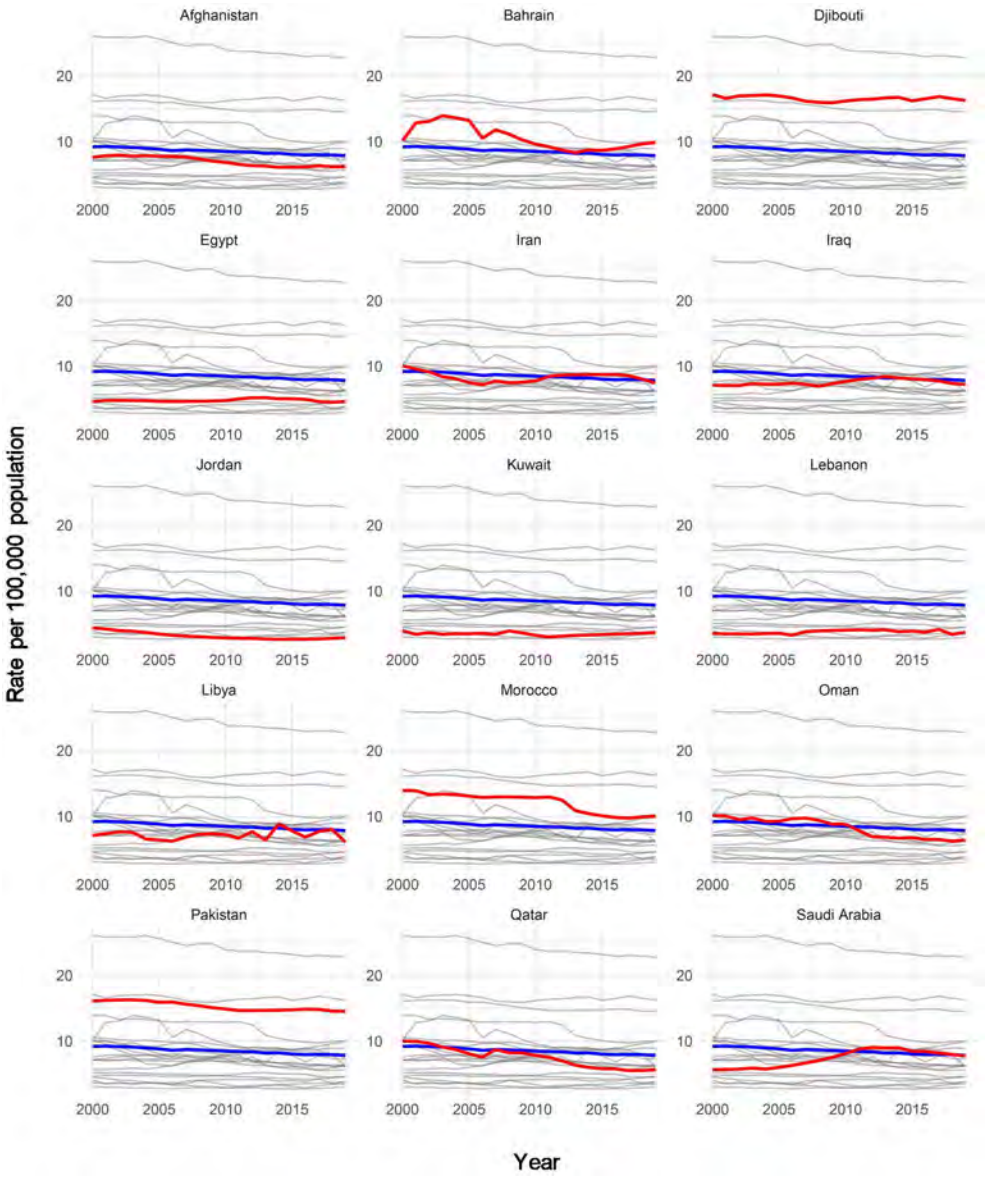

FIGURE 2. Age-standardized suicide rates for males.
Data from the Occupied Palestinian territory was unavailable.

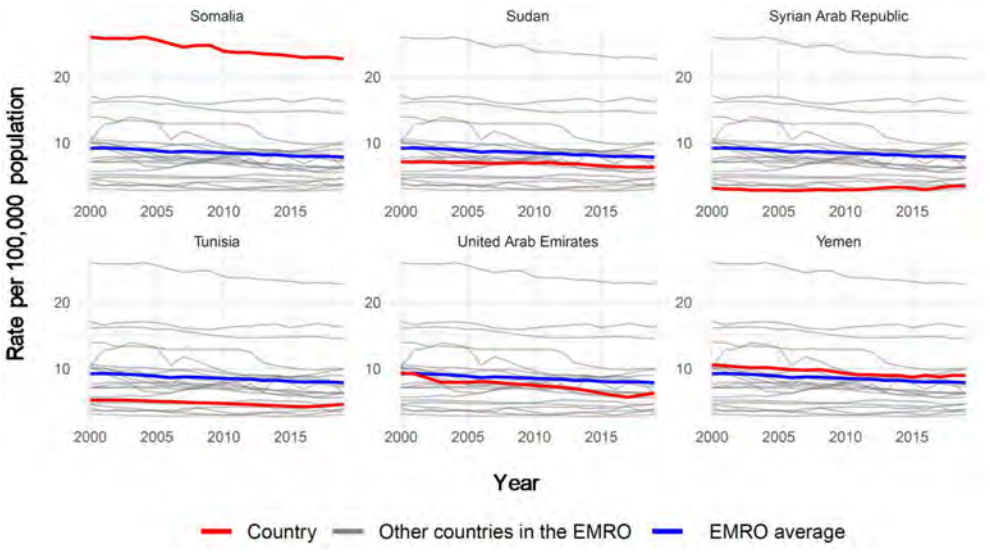

FIGURE 2. Continued.

mental distress may experience elevated risks of suicide (Iqbal et al., 2020; Mamun & Ullah, 2020), as financial difficulties and unemployment have been linked to suicidal behavior (Abdullah et al., 2018; Ben Khelil et al., 2021; Rasouli et al., 2019; Shooshtary et al., 2008).

Legislation

Suicide is not considered a criminal act in Egypt, Iran, Iraq, Jordan, Kuwait, Libya, Morocco, Pakistan, Tunisia, or the United Arab Emirates (Mishara & Weisstub, 2016). Elsewhere in the region, individuals and their families are at risk of facing criminal charges after suicidal behavior. It is, thus, likely that persons avoid seeking medical care after self-harm because of fear for legal consequences (Naveed et al., 2017).

Monitoring of Self-Harm

National data on self-harm has been collected in a few countries, for instance, Iran, Lebanon, and Kuwait (Hajebi et al., 2011; Rezaeian & Khan, 2020). Some data collections involve incidence reports from both primary and secondary care on a national level, as in Iran. However, a local monitoring system, for instance in one hospital or a geographically defined area as seen in Oman and Pakistan (WHO, 2021a; Zaidan et al., 2002), can give valuable information regarding self-harm.

Based on national data, the rate of self-harm incidents was 65.7 per 100,000 population in Iran in 2009 (Hajebi et al., 2013). Self-harm was predominantly observed among adolescents and young adults, as seen in regional data from Iran, Iraq, Oman, Pakistan, and Qatar (Barary et al., 2021; Sankaranarayanan et al., 2020; Shekhani et al., 2018; Younis & Moselhy, 2010; Zaidan et al., 2002).

Suicide Preventive Measures

Seven out of 22 countries and regions in the EMRO region have national, government-initiated plans, which include efforts of suicide prevention (see Table 1). A stand-alone plan for suicide prevention exists in Iran (WHO, 2021b), while suicide prevention has been integrated into the national plan for mental health in Afghanistan, Egypt, Iraq, Lebanon, Qatar, and Tunisia. Information regarding the status of these efforts is sparse in some countries, such as Afghanistan. According to personal information, efforts have

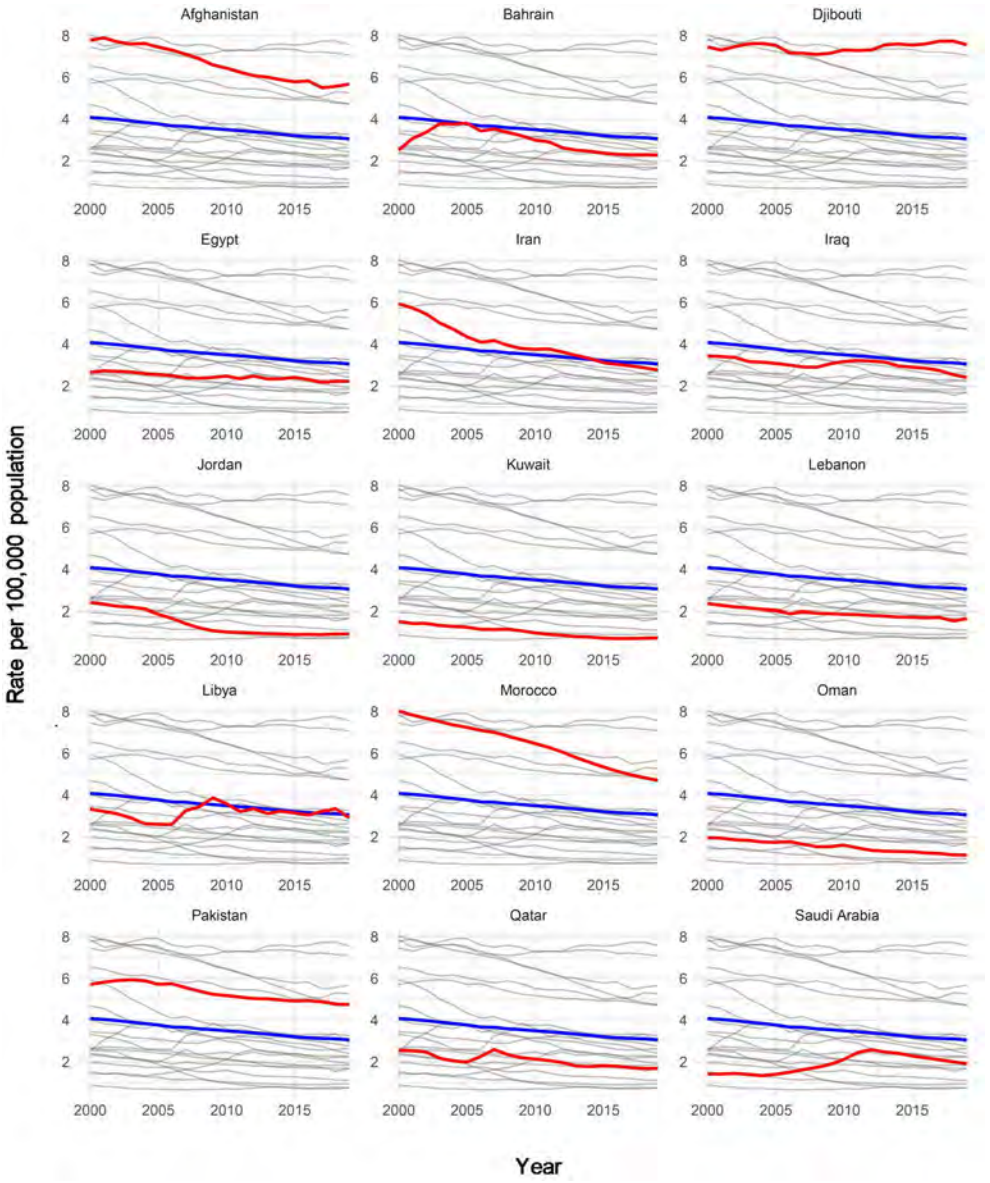

FIGURE 3. Age-standardized suicide rates for females.
Data from the Occupied Palestinian territory was unavailable.

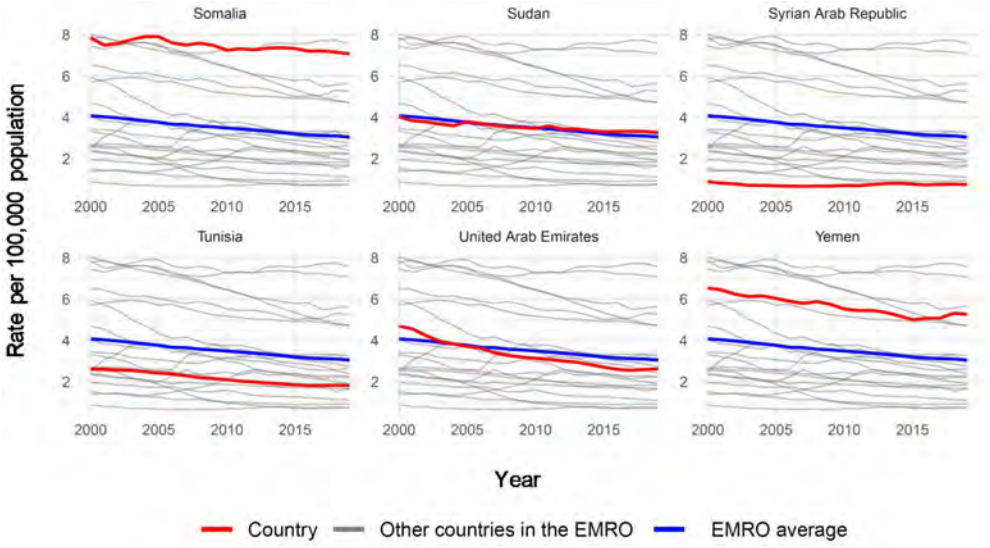

FIGURE 3. Continued.

been brought to a standstill in Tunisia, while situation analyses of suicidal behavior have been conducted in Iraq and Qatar (WHO, 2021b).

Both Iran and the United Arab Emirates have installed efforts to ban use of poisonous pesticides in their country, as mentioned in the section below. Training programs for media professionals regarding safe reporting on suicide incidents have been conducted in seven of the EMRO countries. Eleven EMRO countries reported having conducted training of health-care professionals regarding suicide prevention (WHO, 2021b). As seen in Table 1, gatekeeper training, focusing on nonspecialized health workers, has taken place in five countries. Almost half of the EMRO countries have telephone helplines.

Means Restriction

Restricting access to suicide methods is one of the best evidence-supported strategies (Mann et al., 2021). Based on available data, hanging is the most frequently used suicide methods in the EMRO countries (Table 2). Although it remains challenging to control access to means of hanging in general, there might be options in institutional settings where, for instance, ligature points can be removed (Gunnell et al., 2005).

The availability of pesticides and insecticides is a major source of concern (Abbas et al., 2018; Gharbaoui et al., 2019; Kavousi-Gharbi et al., 2017; Moazzam et al., 2009; Nabih et al., 2017; Safdar et al., 2021). One of these agents is aluminum phosphide (referred to as "wheat pills" or "rice pills"), which, despite being banned, is still found at markets and in herbal shops in Iran (Barary et al., 2021; Valipour et al., 2021). Another easily available agent is paraphenylenediamine, an ingredient in black henna that is commonly used in cultural practices and referred to as *kala pathar* (black-stone) in Urdu in Pakistan (Safdar et al., 2021). A banning of pesticides that are toxic for humans has been linked to reduction in the number of pesticide deaths in Jordan

TABLE 1. Overview of suicide preventive efforts in the WHO EMRO region.[a]

	National plan for suicide prevention	Pesticide-control programs	Training of media professionals	Training of health-care staff regarding suicide prevention	Gatekeeper training	Mental hospital beds /100,000 population	Helpline for suicide prevention
Afghanistan	Yes, integrated in mental health plan	No	No	No	No	0.30	No
Bahrain	No	No	No	No	No	19.32	No
Djibouti	No	Unknown	Unknown	Unknown	Unknown	0.0	No
Egypt	Yes, integrated in mental health plan	No	No	Yes	No	7.04	Yes
Iran (Islamic Republic of)	Yes, stand-alone plan	Yes	Yes	Yes	Yes	7.5	Yes
Iraq	Yes, integrated in mental health plan	No	Yes	Yes	No	3.49	No
Jordan	No	No	No	Yes	Yes	6.65	Yes
Kuwait	No	No	Yes	Yes	No	17.2	Yes
Lebanon	Yes, integrated in mental health plan	No	No	Yes	No	27.51	Yes
Libya	No	No	No	No	No	Unknown	Yes
Morocco	No	No	No	Yes	Yes	4.17	Yes
Occupied Palestinian territory	No	Unknown	Unknown	Unknown	Unknown	Unknown	Yes
Oman	No	No	No	No	No	Unknown	No
Pakistan	No	No	No	Yes	Yes	2.47	No
Qatar	Yes, integrated in national health strategy	No	Yes	Yes	No	4.85	Yes
Saudi Arabia	No	Unknown	Unknown	Unknown	Unknown	17.11	Yes
Somalia	No	No	No	No	No	70	Yes
Sudan	No	No	No	No	No	0.81	Yes
Syrian Arab Republic	No	No	Yes	Yes	Yes	5.34	No
Tunisia	Yes, integrated in mental health plan	No	Yes	Yes	No	8.05	No
United Arab Emirates	No	Yes	Yes	No	No	0.90	Yes
Yemen	No	No	No	No	No	3.80	No

[a]Data source: World Health Organization (2017, 2021b).

TABLE 2. Methods of suicidal behavior by country.[a]

	Hanging	Pesticides	Insecticides (aluminum phosphide)	*Kala pathar* (black henna)	Firearms	Self-immolation	Others Agents
Afghanistan						Severe problem	
Bahrain	Severe problem				Not a concern	Not a concern	
Djibouti							
Egypt	Severe problem	Severe problem			Severe problem	Severe problem	
Iran	Severe problem	Some concerns	Severe problem		Not a concern	Severe problem	
Iraq	Severe problem	Severe problem					
Jordan							
Kuwait	Severe problem				Not a concern	Not a concern	
Lebanon							
Libya							
Morocco		Severe problem	Severe problem				
Occupied Palestinian territory							
Oman		Severe problem					Paracetamol
Pakistan		Severe problem	Severe problem	Severe problem	Severe problem	Some concerns	Kerosene oil, rat poison
Qatar	Severe problem	Not a concern	Not a concern	Not a concern	Not a concern	Not a concern	Jumping from height
Saudi Arabia		Severe problem					
Somalia							
Sudan				Severe problem			
Syrian Arab Republic			Severe problem				
Tunisia	Severe problem	Severe problem				Severe problem	
United Arab Emirates		Severe problem			Not a concern		
Yemen							

[a]We evaluated whether a suicide method was considered as a severe,problem, caused some concern or was not a concern based on the existing evidence from the individual countries. "Severe problem" was defined as methods that were reported in several studies and/or identified as a problem in large segments of the country. "Some concerns" was defined as methods that were reported by single studies and/or as a problem of lower prevalence or in some parts of the country. "Not a concern" was defined as methods that were identified by suicides as not being frequent. Data sources: Al-Waheeb et al. (2020); Jedidi et al. (2017); Kordrostami et al. (2017); Moneim et al. (2011); Safdar et al. (2021); Valipour et al. (2021); World Health Organization (2021a); Younis and Moselhy (2010); Zaidan et al. (2002). Information on methods of suicidal behavior was not available for all countries.

(Gunnell et al., 2017). In Pakistan, media campaigns have successfully managed to advocate for a ban of paraphenylenediamine (Safdar et al., 2021).

Firearm suicides were reported to account for up to 17% of suicides in a rural district of Pakistan and 16% of male suicide in a province of Egypt (Moneim et al., 2011; Safdar et al., 2021), while lower percentages were reported in countries with limited availability of firearms, such as Iran, Kuwait, and the United Arab Emirates (Al-Waheeb et al., 2020; Koronfel, 2002). Limiting the availability of firearms in general has been proposed as an effective preventive measure (Abdullah et al., 2018).

Jumping from high buildings and falls into wells and rivers or lakes were reported for rural areas in Tunisia and Pakistan, as well as Lebanon and Qatar (Khan et al., 2009; Mlayeh et al., 2021; Richa & Richa, 2015). Measures to encounter this include covers over wells or barriers at high viewpoints or bridges (Pirkis et al., 2013).

Self-immolation, or burns, is a well-known problem in several of the EMRO countries (Paiman & Khan, 2017; Parvareh et al., 2018; Saberi-Zafaghandi et al., 2012). In many cases, victims are young women with lower educational levels who use kerosene, which is easily available within most households (Ben Khelil et al., 2021; Cleary et al., 2021; Suhrabi et al., 2012). Self-inflicted burns can lead to severe tissue damage, and extensive amounts of corrective plastic surgeries may be needed to restore, for instance, facial features. In Iran, video-recorded victim stories, which described their experiences and the consequences of the act as well as introduced strategies for problem-solving, have been linked to fewer suicide attempts by this method (Ahmadi & Ytterstad, 2007). Using social media, this approach could potentially have a wider reach.

Media Reporting

Suicide deaths presented in the media have been linked to incidents of copycat behavior (World Health Organization [WHO], 2023). Reports furthermore show that some outlets in the region do not comply with the WHO media guide, for instance, by listing information on where people with suicide thoughts can get help (Arafat et al., 2022; Elzamzamy et al., 2021). On the other hand, workshops with media professionals have succeeded in improving reporting practices (Mental Health Innovation Network, 2021).

Promotion of Mental Wellbeing in Young People

Concerns regarding young people's mental well-being exist across the region. In Jordan, 50% of high school students ages 15–18 years reported to have experienced suicide thoughts within the past two weeks (AlAzzam et al., 2021). In Iran, Jordan, Occupied Palestinian territory, Saudi Arabia, and Tunisia between 4.5% and 15.8% of university students reported a lifetime suicide attempt (Eskin et al., 2016).

Efforts to promote healthy pathways in schools, such as Helping Adolescents Thrive or the Good Behavior Game, have been implemented with positive indications, for instance in Morocco and Sudan (Moroccan Ministry of Health & Ministry of Education, 2019; Saigh & Umar, 1983; World Health Organization [WHO], 2020c). Other efforts include online training in mental health literacy for teachers and recovery techniques for war-affected children (Imran et al., 2018; Qouta et al., 2012). Improving

the access to mental health care through community-based specialist child and adolescent mental health services has been tested and implemented in Qatar (Khan et al., 2021; Wadoo et al., 2021).

Early Identification, Management and Follow-Up

Early intervention for people with suicide thoughts have been conducted in many areas, particularly rural ones, led by local community and primary care. Efforts to train community-based primary health-care staff to better recognize and treat mental health problems have in Iran been linked to better detection and surveillance (Malakouti et al., 2015). An online program for gatekeeper training of humanitarian workers in conflicted areas of Syria was, by participants, evaluated to raise awareness regarding warning signs and interaction with young persons at risk of suicide (Colucci et al., 2022).

Based on information on public websites, about half of the EMRO countries seemingly have telephone helplines for people at risk of suicides. Although helplines generally are run by volunteer groups, the Qatar Ministry of Public Health operates a national mental health helpline run by mental health professionals (The Peninsula, 2021). This means that the helpline staff can provide an initial assessment and refer directly to further treatment. As mentioned by Iranian helpline counselors, it is useful to have standard guidelines for counseling and management of challenging situations when setting up a helpline (Djalalinia et al., 2020).

The large-scale WHO SUPRE-MISS intervention demonstrated the effectiveness of a psychosocial assessment of people who present with self-harm in the emergency department (Fleischmann et al., 2008). In a similar setting, patient education (psychoeducation), cognitive behavioral therapy-based tools to improve coping strategies, and follow-up by phone or postcards have been linked to subsequent reductions in suicide thoughts in randomized study designs (Fleischmann et al., 2008; Hassanian-Moghaddam et al., 2017; Husain et al., 2014; Mousavi et al., 2014). Brief and culturally adapted psychosocial intervention after self-harm was linked to reduced levels of suicide thoughts and found to be cost-effective in Karachi, Pakistan (Alvi et al., 2021; Husain et al., 2014). Digital approaches, such as tele-psychiatric consultations, have been explored in recent years (Karim et al., 2020). Advantages of digital tools include a relatively low cost-burden and the possibility of also reaching remote regions.

DISCUSSION

Suicidal behavior is generally considered to be under-recorded in the EMRO region (Hajebi et al., 2013; Moneim et al., 2011; Rezaeian & Khan, 2020). Based on a tenet of Islam that explicitly prohibits suicide for Muslims, suicidal behavior remains a criminal act in more than half of the EMRO countries, and it is likely that people at risk of suicide avoid seeking help due to fear of legal prosecution. Other barriers for a reliable registration of suicide include social stigma (Hajebi et al., 2013).

The levels and changes in the suicide rates over time should be interpreted with caution, given that data for all countries are based on estimates and that some countries do not collect vital data on suicide deaths.

Although stressful life events and mental disorders are identified as risk factors for suicide and self-harm, their impact is worsened through stigma and lack of access to mental health care. This is particularly prevalent in countries with high poverty levels, such as Afghanistan, Pakistan, Somalia, Syria, and Yemen (WHO, 2021b). Women and marginalized groups may also face extra challenges in patriarchal cultures.

Only few countries have developed a national plan for suicide prevention, despite this being recommended by WHO (2021a). Effective suicide prevention is hampered, particularly in low- and middle-income countries, by poverty and lack of infrastructure, including scarce availability of mental health care (Rezaeian & Khan, 2020). In addition, help-seeking by people with suicide thoughts and their next of kin may be hindered through stigma and lack of mental health literacy (Al-Shannaq & Aldalaykeh, 2021; Suhrabi et al., 2012). For this reason, psychoeducation regarding mental health and the importance of seeking help may be fruitful strategies (Malakouti et al., 2022; Rezaeian & Khan, 2020).

Various approaches for suicide prevention may be further explored. Several highly toxic agents, such as pesticides and black henna, are frequently used for suicidal behavior in some areas where these agents are easily available. This could be a potential target for future efforts. Self-immolation is often an impulsive act that has long-lasting health consequences. Video-recorded victim stories have shown promising results and could be further explored, for instance in social media. Another strategy is restrictive laws regarding ownership of firearms, especially in countries where guns are widely available.

Psychosocial interventions for people after self-harm, which have been tested in the region, were linked to reductions in suicide thoughts and self-harm in high-quality studies. Still, it may prove challenging to secure access to help for certain groups in the EMRO region, for instance, for people who are living in poverty or victims of intimate violence. In societies with a patriarchal culture, women may have limited access to sources of support. Nevertheless, digital intervention and smartphone apps might be useful means of psychoeducation, if they are adapted culturally to their target groups. Given that many of the countries in the EMRO region speak Arabic, region-wide and culturally adapted initiatives might be considered.

Limitations

For more than half of the EMRO countries, vital statistics on causes of death are either unavailable or evaluated to be of insufficient quality (World Health Organization [WHO], 2020b). While striving to provide an overview, it cannot be ruled out that studies, for instance, documenting relevant risk factors or effective interventions were missed. Although information on existing services was confirmed through country focal points from the respective country, this verification was not feasible for all countries.

Many of the countries in the EMRO have been challenged by regional instabilities, natural disasters, displacement of people, and the COVID-19 pandemic over recent years. All of these events are linked to adverse mental health outcomes. This is particularly unfortunate given that people are generally underserved in terms of health and mental health care in this region.

Dedicated interventions are needed to achieve significant suicide reductions; and documenting effectiveness of such efforts is, if possible, even more important in countries where resources are scarce. Decriminalization of suicide, better surveillance and more accurate statistics are some of the tools that could help reduce barriers for help-seeking and gain a better overview. Evidence-supported interventions, such as means restrictions of poisonous substances and firearms, implementation of media guidelines, and dissemination of victims' stories are all promising strategies. Others include fostering mental health in youth through school-based efforts and securing access to help, for instance through web-based solutions. Last, it is important to reduce stigma and general barriers for help-seeking to ensure access to support and follow-up for those at-risk of suicide.

DECLARATION OF INTEREST STATEMENT

No potential conflict of interest was reported by the authors.

FUNDING

This work was supported by World Health Organization.

AUTHOR NOTE

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