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Suicidal Behavior in Muslim Majority Countries

Epidemiology, Risk Factors, and Prevention

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S. M. Yasir Arafat: To my mother Amena Begum
Mohsen Rezaeian: To my wife Mojgan and my daughters Maryam and Mahsa

Preface

Suicide is a major global public health problem. The World Health Organization (WHO) estimates of 2019 revealed that more than 700,000 people died by suicide all over the world. More than two-thirds (77%) of the global suicides occur in low- and middle-income countries (LMICs). Paradoxically, these countries have inadequate research on suicide and its prevention.

Islam is the second largest religion in the world, with approximately 50 countries and territories with a Muslim-majority population, totaling about 1.9 billion people. Most (though not all) of these countries are LMICs and situated in Asia and Africa. There are also sizable Muslim populations in non-Islamic countries. Suicide is strongly prohibited in Islam and based on this tenet, suicide and self-harm remain criminalized acts in many Islamic countries.

When compared to the global estimates and to non-Islamic countries, Muslim-majority countries almost have lower rates of suicide, indicating that Islamic faith and practice may be protective against suicidal behaviors. However, several factors such as criminal status, stigma toward suicide, extreme dearth of research, low-quality data, and under-reporting make it difficult to draw any firm conclusions. Some authors argue that in many Islamic countries suicides are misclassified due to religious and social reasons and high rates of homicides in these countries are actually repositories for "hidden" suicides and the reportedly low rates are actually an artifact.

Whatever may be the case, the fact is that there has been no serious attempt to study suicidal behaviors in Muslim-majority countries. We therefore aimed to edit this book covering epidemiology, risk factors of suicidal behavior, and the challenges of suicide prevention in Muslim-majority countries. As far as we know, there has never been a book on this specific topic. Hence this book is unique and the first of its kind.

We started the book with an opening chapter which gives an overview of subject of suicide in general, role of religion in suicide, suicide and Islam, epidemiology of suicidal behavior, suicide data, media reporting of suicide, legal status of suicide, and stigma and literacy of suicide in Muslim majority countries. Among the 47 countries, there are 20 chapters discussing suicidal behavior of 24 Muslim-majority

countries (14 from WHO's Eastern Mediterranean Region, seven from WHO's European Region, two from WHO's South East Asian Region, and one country from WHO's Western Pacific Region) in the book albeit, we tried to include a chapter for each of the 47 countries. Despite our all sincere efforts, we could not find any contributing authors for countries in WHO's Africa region and some countries of other regions. The dearth of studies on suicide could be an important attributing factor for that. Each chapter includes an introduction of the country, its socio-economic, geo-political and cultural background, epidemiology of suicidal behavior (ideation, self-harm, suicide attempt, and suicide), legal status of suicide (process of registration and verdict of suicides), suicide literacy and stigma-related issues, risk factors, surveillance systems for self-harm, availability of national statistics, gaps in research evidence, and existing opportunities and challenges for suicide prevention and gaps in research evidence. Finally, a closing chapter summarizes the potential gaps and ways out for research and suicide prevention in Muslim-majority countries.

The book would serve as a useful resource for policymakers, public health specialists, mental health professionals as well as non-governmental and voluntary organizations interested in suicide prevention in Muslim-majority countries and in Muslim populations in non-Islamic countries.

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About the Editors

Dr. S. M. Yasir Arafat is currently working as an Assistant Professor of Psychiatry at Enam Medical College and Hospital, Dhaka, Bangladesh. He completed his MD in Psychiatry from Bangabandhu Sheikh Mujib Medical University, Dhaka, and MBBS from the Dhaka Medical College, Dhaka, Bangladesh. He also did an MPH in Health Economics and an MBA in Marketing. He has (co)authored more than 350 peer-reviewed articles, book chapters, and (co)edited about 10 books with Springer. He was included in the global 2% researcher list in 2021, 2022, and 2023. He is acting as an editorial member in more than 10 leading journals in mental health published by Elsevier, Frontiers, Wiley, Springer, and Taylor and Francis. His research focused on suicidal behavior, psychometrics, panic buying, and psycho-sexual disorders.

Prof. Mohsen Rezaeian is a Professor of Epidemiology at Rafsanjan University of Medical Sciences in Iran. He is one of the founders of the Iranian Scientific Society for Suicide Prevention (ISSSP) and Editor-in-Chief of the newly developed *Journal of Suicide Prevention* (JSP). He is the Co-chair of the International Association for Suicide Prevention (IASP) Special Interest Group (SIG) on the Development of Effective National Suicide Prevention Strategy and Practice. Over the past two decades, he has published numerous articles and a couple of book chapters in the area of suicide prevention. He has also developed some new ideas in the areas of suicide studies and suicide prevention.

Prof. Murad M. Khan MRCPsych, Ph.D., is a Professor Emeritus, Department of Psychiatry and Brian and Mind Institute, Aga Khan University. He is also an Associate Faculty at the Centre for Bioethics and Culture (CBEC), Karachi. He is the past President of the International Association for Suicide Prevention (IASP) 2017–2020 and continues to serve on the Board of IASP, where he contributes to the organization's global suicide prevention strategy. He also serves in several other mental health non-governmental organizations and bioethics forums in Pakistan. His research interests include focusing on epidemiology and socio-cultural and religious

factors in suicide and self-harm in South Asia and developing economies, mental health of women and the elderly, narrative medicine, and organizational ethics. His extensive research work, findings, and contributions on social and ethical issues have been published in several medical journals and the lay press, where is a frequent contributor.

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Suicidal Behavior in Islamic Countries: An Overview

S. M. Yasir Arafat, Mohsen Rezaeian, and Murad M. Khan

Abstract Historically, Muslim countries have lower rates of suicide compared to the global average as well as those of Western countries. Many theories are put forward for this. However, suicide is a complex phenomenon affected by multiple factors and there are wide variations in the practice of Islam, cultural norms, social and political structures, geography, and income levels of different countries. Generally, suicide is an under-researched and under-studied problem in Muslim-majority countries. This chapter gives an overview of suicidal behavior in the context of sociocultural, economic and political, backgrounds, the Islamic view on suicide, epidemiology, legal status, sources of data, and attitudes toward suicide in Muslim countries.

Keywords Suicide · Suicidal behavior · Muslim countries · Self-harm · Suicide prevention

1 Background

Islam is the second largest religion in the world (after Christianity) with about 2 billion Muslims living across the world including in those countries where Islam is not the the predominant religion (World Population Review, 2023). There are 47 Muslim-majority countries with a total population of about 1.6 billion (Table 1). (A Muslim-majority country is defined as one with more than 50% of its population

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being Muslims) (Lew et al., 2022a, Fig. 1). Of the 47[1] countries, 18 are located in Africa, 27 in Asia, and 2 in Europe (World Population Review, 2023). Based on the World Health Organization's (WHO) 5 administrative regions, 11 countries are located in Africa (AFR), 22 in the Eastern Mediterranean (EMR), 9 in Europe (EUR), 3 in South-East Asia (SEAR), and 2 in Western Pacific (WPR). Seven countries (all in Asia; 6 EMRand 1 WPR) are in the high-income (HI) bracket, and the rest 40 (85%) countries are in low- and middle-income countries (LMICs). All 18 African Muslim countries belong to the LMIC group (Table 1) (Arafat, 2022a). Among the countries, 10 (located in Asia) had very high scores in the human development index (HDI), 15 had high scores, 9 had medium scores, and 12 had low HDI scores (Table 1).

While Islamic religion was the common factor in the 47 countries, these countries differed from each other based on geography, ethnicity, economic status, political conditions, HDI, social norms, culture, as well as the practice of Islam. Some of the countries are faced with significant political, economic, and security crises including Afghanistan, Azerbaijan, Burkina Faso, Iraq, Palestine, Libya, Lebanon, Mali, Niger, Sudan, Syria, and Yemen.

2 Islam and Suicidal Behavior

While all major religions of the world, i.e., Christianity, Islam, Judaism, Buddhism, and Hinduism, condemn suicide to varying degrees, the Islamic religion goes much further condemning it as a major sin, those dying by suicide being denied entry to Heaven (Chaleby, 1996). Both the Koran and Haddith (sayings of Prophet Mohammed (PBUH) warn against suicide, the Koran in one of its "*ayats*" (verses 4:29)) stating explicitly—"And do not kill yourselves (or one another). Indeed, Allah is to you ever Merciful." In a number of Islamic countries (for example, Bangladesh and Kuwait) where many of the laws are religiously based, suicide continues to be criminalized (Lester, 2006).

Simpson and Conklin (1989) using a 71-nation cross-national analysis, showed that even when controlled for factors such as economic, social, and demographic modernity, Islam does have an independent effect in lowering suicide (Simpson & Conklin, 1989).

It has been argued that Islam tries to prevent suicide both directly by openly condemning it (as above) but also by indirectly tackling the root causes of this behavior (Awaad et al., 2023; Rezaeian, 2008). In its indirect endeavor, Islam places a lot of emphasis on social justice by addressing societal problems such as poverty and unemployment, contributing a part of income for the poor ("zakat") prohibition of alcohol, and showing compassion toward those suffering from mental disorders (Awaad et al., 2023; Rezaeian, 2008). For instance, the Koran (9:34) mentions that: "And there are those who bury gold and silver and spend it not in the way of Allah

[1] Mayotte and Western Sahara were excluded due to the unavailability of evidence and separate estimates on suicide.

Table 1 Countries with Muslim population of 50% and above (adapted from Arafat et al., 2022a, 2022b, 2022c; UNDP, 2023; WHO, 2021; World Bank, 2023; World Population Review, 2023)

SN	Country	Total population* (million)	Muslim population* (million)	Muslim %	Suicide rate (per 100,000), 2019	Male suicide rate (per 100,000), 2019	Female suicide rate (per 100,000), 2019	Number of suicides	Continent	WHO region	Income group	HDI score (2021) and category	Political system*	Legal status of suicide
1	Afghanistan	42.24	42.11	99.7	6	6.2	5.7	1573	Asia	EMR	LI	0.48 (L)	Sharia	Not illegal
2	Albania	2.83	1.61	56.7	3.7	5.3	2.2	125	Europe	EUR	UMI	0.79 (H)	Democracy	
3	Algeria	45.61	45.15	99	2.6	3.3	1.9	1072	Africa	AFR	LMI	0.75 (H)	Democracy	
4	Azerbaijan	10.41	10.09	96.9	4	6.6	1.5	411	Asia	EUR	UMI	0.75 (H)	Democracy	Not illegal
5	Bahrain	1.49	1.09	73.7	7.2	9.9	2.3	145	Asia	EMR	HI	0.87 (VH)	Monarchy	Criminal offense
6	Bangladesh	172.95	154.10	89.1	3.9	6	1.7	5998	Asia	SEAR	LMI	0.66 (M)	Democracy	Criminal offense
7	Bosnia and Herzegovina	3.21	1.63	50.7	8.2	13.5	3.4	361	Europe	EUR	UMI	0.78 (H)	Democracy	
8	Brunei	0.45	0.36	78.8	2.5	4.2	0.8	12	Asia	WPR	HI	0.83 (VH)	Monarchy	Criminal offense
9	Burkina Faso	23.25	14.69	63.2	14.4	24.5	6.5	1521	Africa	AFR	LI	0.45 (L)	Democracy	
10	Chad	18.28	9.52	52.1	13.2	20.2	6.9	1027	Africa	AFR	LI	0.39 (L)	Democracy	
11	Comoros	0.85	0.84	98	8.5	11.3	5.8	46	Africa	AFR	LMI	0.56 (M)	Democracy	
12	Djibouti	1.14	1.07	94	11.9	16.3	7.6	94	Africa	EMR	LMI	0.51 (L)	Democracy	
13	Egypt	112.72	101.44	90	3.4	4.6	2.2	3022	Africa	EMR	LMI	0.73 (H)	Democracy	Criminal offense

(continued)

Table 1 (continued)

SN	Country	Total population* (million)	Muslim population* (million)	Muslim %	Suicide rate (per 100,000), 2019	Male suicide rate (per 100,000), 2019	Female suicide rate (per 100,000), 2019	Number of suicides	Continent	WHO region	Income group	HDI score (2021) and category	Political system*	Legal status of suicide
14	Gambia	2.77	2.65	95.7	9.6	13.3	6.2	113	Africa	AFR	LI	0.5 (L)	Democracy	Criminal offense
15	Guinea	14.19	12.64	89.1	12.3	18.4	8	892	Africa	AFR	LI	0.46 (L)	Democracy	
16	Indonesia	277.53	242.01	87.2	2.6	4	1.2	6544	Asia	SEAR	UMI	0.7 (H)	Democracy	Not illegal
17	Iran	89.17	88.64	99.4	5.1	7.5	2.7	4334	Asia	EMR	UMI	0.77 (H)	Democracy	Not illegal
18	Iraq	45.50	43.91	96.5	4.7	7.3	2.4	1418	Asia	EMR	UMI	0.68 (M)	Democracy	Not illegal
19	Jordan	11.34	11.01	97.1	2	3	0.9	165	Asia	EMR	UMI	0.72 (H)	Monarchy	Criminal offense
20	Kazakhstan	19.61	13.76	70.2	18.1	30.9	6.9	3256	Asia	EUR	UMI	0.81 (VH)	Democracy	Not illegal
21	Kuwait	4.31	3.22	74.6	2.7	3.8	0.7	122	Asia	EMR	HI	0.83 (VH)	Monarchy	Criminal offense
22	Kyrgyzstan	6.74	6.06	90	8.3	13.5	3.5	474	Asia	EUR	LMI	0.69 (M)	Democracy	Not illegal
23	Lebanon	5.35	3.27	61.1	2.8	3.9	1.7	190	Asia	EMR	LMI	0.71 (H)	Democracy	Not illegal

(continued)

Table 1 (continued)

SN	Country	Total population* (million)	Muslim population* (million)	Muslim %	Suicide rate (per 100,000), 2019	Male suicide rate (per 100,000), 2019	Female suicide rate (per 100,000), 2019	Number of suicides	Continent	WHO region	Income group	HDI score (2021) and category	Political system*	Legal status of suicide
24	Libya	6.89	6.65	96.6	4.5	6.1	2.9	304	Africa	EMR	UMI	0.72 (H)	Democracy	Not illegal
25	Malaysia	34.31	21.03	61.3	5.8	9	2.4	1823	Asia	WPR	UMI	0.8 (VH)	Democracy	Criminal offense
26	Maldives	0.52	0.52	100	2.8	4.1	0.9	15	Asia	SEAR	UMI	0.75 (H)	Democracy	Criminal offense
27	Mali	23.29	21.87	93.9	8	10.5	5.7	806	Africa	AFR	LI	0.43 (L)	Democracy	Criminal offense
28	Mauritania	4.86	4.86	100	5.5	7.4	3.9	141	Africa	AFR	LMI	0.56 (M)	Democracy	
29	Morocco	37.84	37.46	99	7.3	10.1	4.7	2617	Africa	EMR	LMI	0.68 (M)	Monarchy	Not illegal
30	Niger	27.20	27.01	99.3	10.1	14.1	6.4	1227	Africa	AFR	LI	0.4 (L)	Democracy	
31	Oman	4.64	3.99	85.9	4.5	6.4	1.1	241	Asia	EMR	HI	0.82 (VH)	Monarchy	Criminal offense
32	Pakistan	240.49	232.07	96.5	9.8	14.6	4.7	19,331	Asia	EMR	LMI	0.54 (M)	Democracy	Not illegal
33	Palestine	5.37	0.00						Asia	EMR	LMI	0.72 (H)	Democracy	Criminal offense
34	Qatar	2.72	1.77	65.2	4.7	5.7	1.7	165	Asia	EMR	HI	0.85 (VH)	Monarchy	Criminal offense

(continued)

Table 1 (continued)

SN	Country	Total population* (million)	Muslim population* (million)	Muslim %	Suicide rate (per 100,000), 2019	Male suicide rate (per 100,000), 2019	Female suicide rate (per 100,000), 2019	Number of suicides	Continent	WHO region	Income group	HDI score (2021) and category	Political system*	Legal status of suicide
35	Saudi Arabia	36.95	36.58	99	5.4	7.8	1.9	2046	Asia	EMR	HI	0.88 (VH)	Monarchy	Criminal offense
36	Senegal	17.76	17.03	95.9	11	18.5	5.2	978	Africa	AFR	LMI	0.51 (L)	Democracy	
37	Sierra Leone	8.79	6.78	77.1	11.3	14.8	8.2	521	Africa	AFR	LI	0.47 (L)	Democracy	Criminal offense
38	Somalia	18.14	18.14	100	14.7	22.8	7.1	1219	Africa	EMR	LI		Democracy	Criminal offense
39	Sudan	48.11	48.11	100	4.8	6.3	3.3	1644	Africa	EMR	LI	0.51 (L)	Authoritarian	Criminal offense
40	Syria	23.23	20.21	87	2.1	3.5	0.8	333	Asia	EMR	LI	0.57 (M)	Authoritarian	Criminal offense
41	Tajikistan	10.14	9.94	98	5.3	7.3	3.4	399	Asia	EUR	LI	0.68 (M)	Democracy	Not illegal
42	Tunisia	12.46	12.33	99	3.2	4.6	1.8	383	Africa	EMR	LMI	0.73 (H)	Democracy	Not illegal
43	Türkiye	85.82	85.64	99.8	2.3	3.6	1.2	2003	Asia	EUR	UMI	0.84 (VH)	Democracy	Not illegal
44	Turkmenistan	6.52	6.06	93	6.1	9.4	2.9	337	Asia	EUR	UMI	0.75 (H)	Democracy	Not illegal

(continued)

Table 1 (continued)

SN	Country	Total population* (million)	Muslim population* (million)	Muslim %	Suicide rate (per 100,000), 2019	Male suicide rate (per 100,000), 2019	Female suicide rate (per 100,000), 2019	Number of suicides	Continent	WHO region	Income group	HDI score (2021) and category	Political system*	Legal status of suicide
45	United Arab Emirates	9.52	7.23	76	5.2	6.3	2.6	628	Asia	EMR	HI	0.91 (VH)	Monarchy	Criminal offense
46	Uzbekistan	35.16	30.94	88	8.3	11.8	4.9	2653	Asia	EUR	LMI	0.73 (H)	Democracy	Not illegal
47	Yemen	34.45	34.14	99.1	7.1	9	5.3	1699	Asia	EMR	LI	0.45 (L)	Democracy	Criminal offense

* = till search date April 07, 2023,

HI high-income, *LI* low-income, *LMI* lower-middle-income, *UMI* upper-middle-income, *EMR* Eastern Mediterranean, *EUR* Europe, *AFR* Africa, *WPR* Western Pacific Region, *SEAR* South-East Asia Region, *L* low (<0.55), *M* medium (0.55–70), *H* high (0.7–0.79), *VH* very high (0.8–1.0)

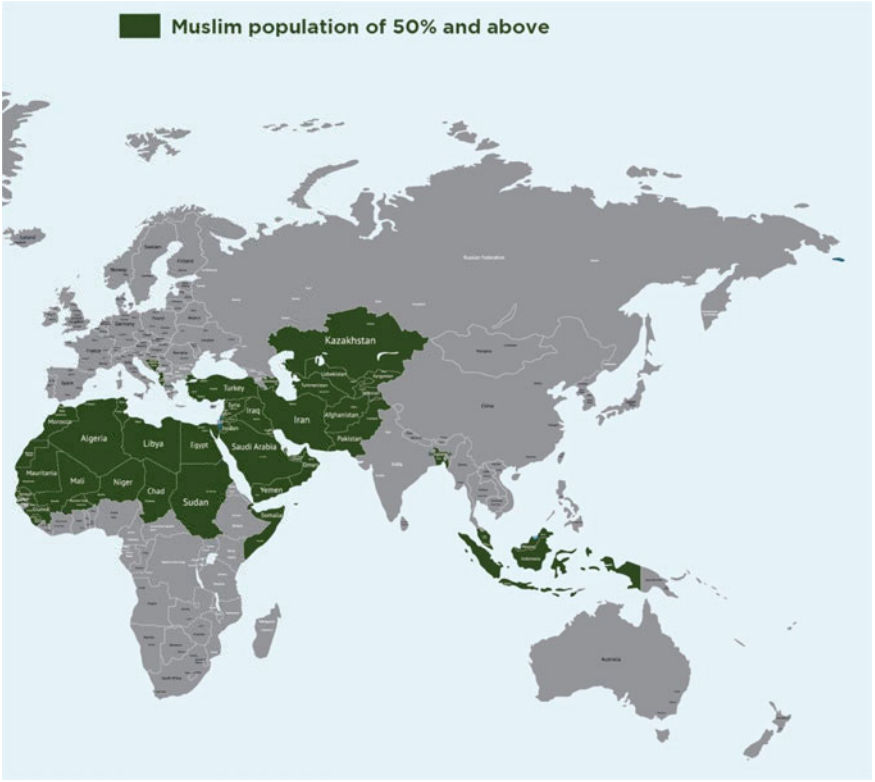

Fig. 1 Muslim-majority countries (adapted from Harakact, 2023)

[i.e., helping poor people]: announce unto them a most grievous penalty." Such a clear commandment can be considered as a mandate for Muslim communities to have a comprehensive strategy for dealing with social problems that have a strong bearing on poor mental health and suicidal behaviors (Mohammad, 1991; Rezaeian, 2008).

3 Epidemiology of Suicidal Behavior in Islamic Countries

3.1 Rates of Suicide

Historically, suicide rates are lower in Muslim countries and in Muslims compared to adherents of other religions (Gearing & Lizardi, 2008; Lester, 2006). In 2019, there were an estimated 703,000 suicides globally (world population 7.7 billion) (World Health Organization, 2021). In the 47 Muslim countries (total population of

approximately 1.6 billion), there were a total of 74,428 suicides or 10.6% of global suicides (Table 1). One recent study analyzing the suicides in 2019 in 46 Muslim-majority countries found the median suicide rate in total, in males and in females, were 5.45 (IQR = 4.8), 7.45 (IQR = 8.2), and 2.9 (IQR = 4), respectively, per 100,000 population (Arafat et al., 2022a, 2022b, 2022c). The global rate of suicide in 2019 was 9.0 per 100,00 population (males 12.6 and females 5.4 per 100,000 population) (Lew et al., 2022a; World Health Organization, 2021). While suicide rates are lower in Muslim-majority countries compared to the global average the male gender predominance follows the same pattern as the rest of the world (Arafat et al., 2022a, 2022b, 2022c). The highest suicide rate was noted in Kazakhstan 18.1 per 100,000 and the lowest rate was found in Jordan 2 per 100,000.

All three rates (total, males, and females) were significantly higher among African Muslim countries than among Asian and European ones (Arafat et al., 2022a, 2022b, 2022c). The rates were highest in 12 sub-Saharan countries (10 per 100,000 population) and lowest in South-East Asian countries (2.58 per 100,000 population) (Lew et al., 2022a). Countries created from the breakdown of the former Soviet Union in Central Asia revealed higher suicide rates than other Asian countries (Lew et al., 2022a).

One study of 46 Muslim countries, found an inverse association between suicide rates (total, male, and females), the HDI, and income category of the country except for two countries (Syria and Kazakhstan) (Arafat et al., 2022a, 2022b, 2022c). The suicide rate in females was more inversely associated with the HDI score of the country compared to the association between the rate in males and the HDI score, indicating that females are more affected by socioeconomic conditions (HDI) of the country. Suicide rates were significantly higher in low-income (LI) countries, followed by lower-middle-income (LMI) countries, upper-middle-income (UMI) countries, and high-income (HI) countries. The study also noted that suicide rates were higher in countries with democratic types of systems compared to the other political systems (monarchy, military, and Sharia-based). Most of the Muslim-majority countries in AFR, EUR, and SEAR have democratic political systems (Table 1).

There was no association between the proportion of the Muslim populations and suicide rates (Arafat et al., 2022a, 2022b, 2022c; Lew et al., 2022a). Nevertheless, the proportion of the Muslim population was significantly associated with male to female suicide rate ratio (Lew et al., 2022a). A similar finding was also noted in a previous study assessing the suicide rate and proportion of Muslim populations (Lester, 2006). However, an earlier study assessing the suicide rate in both Muslim and other countries found that there was a negative association between suicide rate and proportion of Muslim populations (Shah & Chandia, 2010). Another set of data from 14 countries of the former Soviet Union in the 1990s found that suicide rates were negatively associated with the proportion of the Muslim population in those countries (Lester, 2006).

3.2 Rate of Suicidal Thought, Plan, and Attempt

One recent systematic review and meta-analysis found that the lifetime prevalence of suicidal thought/ideation was 21.9% (95% CI 17.4–27.1%) among school, college, and university students living in Muslim-majority countries. It was 13.4% (95% CI 11.1–16.1%) during the past year and the point prevalence was 6.4% (95% CI 4.5–9%). The lifetime prevalence of suicide plans was 6.4% (95% CI 3.7–11%), the 1-year prevalence was 10.7% (95% CI 9.1–12.4%), and the point prevalence was 4.1% (95% CI 2.7–6.2%). The lifetime and one-year prevalence of suicide attempts was 6.6% (95% CI 5.4–8%), and 4.9% (95% CI 3.6–6.5%), respectively (Arafat et al., 2023b). The lifetime prevalence of suicidal thoughts was highest (46.2%) in SEAR, while the 12-month prevalence was highest (16.8%) in EMR. The systematic review identified one article from Africa indicating a dearth of research on suicidality in Africa (Arafat, 2022a, 2022b; Arafat et al., 2023b).

In one study of college students from twelve Muslim-majority countries (Azerbaijan, Egypt, Indonesia, Iran, Jordan, Lebanon, Malaysia, Pakistan, Palestine, Saudi Arabia, Tunisia, and Turkey) Eskin et al. (2019) identified the lifetime prevalence of suicidal thoughts and attempts were 22% and 8.6%, respectively (Eskin et al., 2019).

There is a dearth of studies comparing the prevalence of suicidal behavior on the basis of religion. One recent systematic review and meta-analysis assessed the suicidal behavior among school, college, and university students of 11 South-East Asian countries and revealed that lifetime prevalence of suicidal thoughts and suicide attempts were higher (statistically non-significant) in Islamic countries (Bangladesh and Indonesia) than in Hindus (India and Nepal) even though the suicide rates of these Muslim countries were lower than the Hindu majority countries (Arafat et al., 2023a, 2023b; World Health Organization, 2021). A study assessed suicidality among Turkish and Austrian medical students that revealed that suicidal thought was more noted among Austrian medical students than Turkish (37.8% vs. 27.3%), while suicide attempt was found more in Turkish medical students than Austrians (6.4% vs. 2.2%) (Eskin et al., 2011). Another study compared the suicidal behavior among Turkish and Slovak students and found similar proportions of students with suicidal ideation (Slovak = 36.4%; Turkish = 33.8%), while a significantly higher rate of suicide attempts in Turkish students (Turkish 12.2%, Slovak 4.8%) (Eskin et al., 2014).

3.3 Risk Factors for Suicide

There have been very few studies that have studied risk factors for suicide in Islamic countries. There have been only eight psychological autopsy studies from five Muslim countries (Bangladesh 1; Indonesia 1; Iran 1, Pakistan 2, and Türkiye 3) (Arafat et al., 2021). No psychological autopsy study was identified in the 18 African Muslim countries (Arafat et al., 2021). All the studies were conducted in urban areas

of the respective countries. Among the eight studies, six adopted the case–control study method and two reported a series of suicide cases. The prevalence of mental disorders in case–control studies was 52.8% in Turkey, 96% in Pakistan, 61.3% in Türkiye, and 71.4% in Pakistan in case-series studies. Comparatively lower rates were noted in Türkiye (52.8–69%), and Bangladesh (61%) than Pakistan, Iran, and Indonesia. The dominant risk factors were mental disorders, history of previous non-fatal attempts, employment status, substance use, interpersonal conflicts, and stressful life events (see Arafat et al., 2021). Although there is a dearth of studies, the available evidence suggests similar risk factors for suicide in Muslim-majority countries when compared to Western countries.

4 Legal Status of Suicidal Behavior in Muslim Countries

Among the 192 countries of the world, suicide attempt is a criminal offense in 23 countries and in another 20 countries that follow Islamic or Sharia law (Mishara & Weisstub, 2016; World Health Organization, 2023). We attempted to identify the legal status of 47 Muslim-majority countries from several sources including the *WHO Policy Brief on the decriminalization of suicide and suicide attempts; Decriminalising suicide: Saving lives, reducing stigma*, and other available articles (Lew et al., 2022b; Mishara & Weisstub, 2016; Ochuku et al., 2022; Suryadevara et al., 2018; United for Global Mental Health, 2021; World Health Organization, 2023).

Among the 47 countries, we found suicide is still criminalized in 20 countries (Bahrain (Suryadevara et al., 2018), Bangladesh (Arafat & Khan, 2024), Brunei (Suryadevara et al., 2018; United for Global Mental Health, 2021), Egypt (Abdel-Khalek & Lester, 2024), Gambia, Jordan (Suryadevara et al., 2018), Kuwait (Suryadevara et al., 2018), Malaysia (Ibrahim et al., 2024; Mishara & Weisstub, 2016; United for Global Mental Health, 2021), the Maldives (World Health Organization, 2023), Mali, Palestine (Khatib, 2024), Oman (Al-Adawi et al., 2024; Suryadevara et al., 2018), Qatar (Ghuloum & Karim, 2024; Mishara & Weisstub, 2016; United for Global Mental Health, 2021), Saudi Arabia (Suryadevara et al., 2018), Sierra Leone (World Health Organization, 2023), Somalia (Mishara & Weisstub, 2016; United for Global Mental Health, 2021), Sudan (Mishara & Weisstub, 2016; United for Global Mental Health, 2021), Syria (Adra & Duchonova, 2024), the United Arab Emirates (Suryadevara et al., 2018), and Yemen (Suryadevara et al., 2018)); not illegal in 16 countries (Afghanistan (Paiman, 2024), Azerbaijan (Isayeva & Isaxanli, 2024), Indonesia (Marthoenis, 2024), Iran (Souresrafil et al., 2024; Suryadevara et al., 2018), Iraq (Younis, 2024), Kazakhstan (Suryadevara et al., 2018), Kyrgyzstan (Suryadevara et al., 2018), Lebanon (United for Global Mental Health, 2021), Libya (Elhadi et al., 2024), Morocco (Oneib & Otheman, 2024), Pakistan, Tajikistan (Suryadevara et al., 2018), Tunisia (Charfi et al., 2024), Türkiye (Karkın & Eskin, 2024), Turkmenistan (Suryadevara et al., 2018), and Uzbekistan (Suryadevara et al., 2018)). Suicide attempts were decriminalized in Pakistan in December 2022. In 11 Muslim-majority countries (Albania, Algeria, Bosnia and Herzegovina, Burkina Faso, Chad,

Comoros, Djibouti, Guinea, Mauritania, Niger, and Senegal) the legal status of suicide attempts could not be confirmed. It is important to note that there are variations of information regarding the legal status of suicide among different reports. Studies also identified that criminal legal status of suicide does not act as a deterrent against suicidal behaviors (Lew et al., 2022b; Ochuku et al., 2022; United for Global Mental Health, 2021; World Health Organization, 2023).

5 Suicide Literacy and Stigma in Muslim Countries

It is speculated that there would be a high level of stigma and low level of literacy in Muslim-majority countries due to religious prohibition and lack of research on suicidality. However, there is a dearth of studies assessing suicide literacy and stigma toward suicide in Islamic countries. To date, we found published articles from only seven Muslim countries, namely Bangladesh (Arafat & Khan, 2024), Jordan (Aldalaykeh et al., 2020), Malaysia (Ibrahim et al., 2024; Phoa et al., 2022), Iran (Gholamrezaei et al., 2019), Oman (Al-Adawi et al., 2024), Türkiye (Oztürk & Akin, 2018; published in Turkish), and Tunisia (Fekih-Romdhane et al., 2022). Different instruments were used in different studies. The short version (12 items) of the suicide literacy scale was used in Bangladesh, Jordan, and Tunisia, whereas the longer version (26 items) was used in Malaysia and Iran. It was assessed by a qualitative study in Oman.

6 Concern Related to Suicide-Related Data in Muslim Countries

High-quality data on suicide and self-harm is a fundamental requirement to inform policy and develop evidence-based prevention strategies. This is a huge challenge, especially in LMICs as the process of certification of suicides is complex and multiple stakeholders are involved (WHO, 2019). Several factors have been noted such as the lack of a standard suicide surveillance system, criminal legal status, religious and social stigma, under-reporting, and misclassification of suicides in many countries. WHO (2019) notes that out of the 183 countries, only 87 had good quality (high and medium) suicide data that can be extracted from the countries' vital registration system. Data in the rest of the 96 (61%) countries was either not available or of very poor quality and only estimates, based on a modeling approach was made available. Not surprisingly, good quality data were more available in high-income countries than LMICs (WHO, 2019). Studies comparing suicide rates in Islamic countries with the Western ones revealed under-reporting of suicide rates in Muslim-majority countries (Pritchard et al., 2020). Pritchard and Amanullah (2007) showed that in a

number of Islamic countries, many suicide deaths were "hidden" under the category of "other violent deaths" (OVD) (Pritchard & Amanullah, 2007).

Criminalization of suicide is associated with increased stigma and hinders the disclosure of suicides and self-harm acts (Lew et al., 2022b; Ochuku et al., 2022; United for Global Mental Health, 2021). Under-reporting of suicides has been attributed to the criminal legal status of suicide. This results in distortion of national suicide statistics, under-reporting of suicide, and distortion of national suicide rates (Kline & Sabri, 2023). Additionally, criminal legal status and the threat of legal consequences deter the persons from mental help-seeking care (Kline & Sabri, 2023). Decriminalization helps in several aspects, e.g., decreasing stigma, promoting help-seeking behavior, saving persons from legal consequences, and improving suicide statistics of the country (Kline & Sabri, 2023).

7 Media Reporting of Suicide in Muslim Countries

Media reporting of suicide affects suicidal behavior in the community, especially those who are vulnerable (Niederkrotenthaler et al., 2020). Therefore, responsible media reporting is considered one of the population-based suicide prevention strategies (World Health Organization, 2017; Zalsman et al., 2016). The association between media reporting and suicidality is grossly under-explored in Muslim-majority countries. Out of the 47 Muslim countries, studies on media reporting of suicides were found in only 8 countries (Bangladesh, Egypt, Indonesia, Iran, Iraq, Malaysia, Pakistan, and Türkiye) (Arafat, 2022b; Arafat et al., 2020). Of the 18 Muslim countries in Africa, there was only 1 study from Egypt (Arafat et al., 2020). A number of studies have been conducted in Bangladesh assessing the quality of reporting in print and online media, as well as movies (Arafat & Khan, 2024). Other studies were from Indonesia (Nisa et al., 2020), Iraq (Arafat et al., 2022c; Younis, 2024), Egypt (Mesbah, 2014), Iran (Ahmad et al., 2022; Nabardi et al., 2021; Souresrafil et al., 2024), Malaysia (Ibrahim et al., 2024; Johari et al., 2017; Victor et al., 2019), and from Pakistan (Ayub et al., 2023; Kamboh & Ittefaq, 2019; Mahesar, 2018). In addition to these countries some studies were published in the vernacular language of Türkiye (see Karkın & Eskin, 2024). The studies showed that in none of the countries, WHO guidelines of responsible reporting were being followed and few had any educational and/or prevention information. On the contrary, there was potentially harmful information in the reports, such as personal identifying information (name, age, sex, and occupation), method of suicide, and mono-causal explanation of suicides (Arafat et al., 2020).

8 Suicide Research in Muslim-Majority Countries

There is inadequate and inequitable research in Muslim-majority countries. There is an extreme lack of studies in African Muslim-majority countries. One recent study searched in Scopus with several search terms and identified studies on suicides from three North African countries (Egypt, Morocco, and Tunisia) (Arafat, 2022a). The search did not identify any studies from 12 sub-Saharan region countries (Burkina Faso, Chad, Comoros, Djibouti, Gambia, Guinea, Mali, Mauritania, Niger, Senegal, Sierra Leone, and Somalia), despite the fact that this region is estimated to have the highest suicide rates among the Muslim countries (Lew et al., 2022a). Only a few papers were available from Brunei in WPR and the Maldives in SEAR.

On the positive side, an increased number of papers on suicidal behaviors in Muslim countries appear to have been published in the last decade. The majority of the papers are coming out from Iran, Pakistan, Turkiye, Bangladesh, and Malaysia (Arafat, 2022b) with the *Aga Khan University*, Pakistan, the *Enam Medical College, and Hospital*, Bangladesh, and the *Tehran University of Medical Sciences*, Iran being the prominent institutions with suicide research in Muslim countries (Arafat, 2022b).

9 Conclusions

In this chapter, we have attempted to set the context of suicidal behaviors in Muslim-majority countries for the subsequent chapters in this book. We have given a broad overview of suicidal behavior in Muslim-majority countries, in the context of their geography, socioeconomic development, and the views of Islam on suicide which in turn influences attitudes, laws, and research in these countries. Despite the fact that about 10% of annual global suicides take place in Muslim countries, these countries lag behind in research and high-quality data. While it is generally believed that suicide rates are much lower in Muslim-majority countries compared to the global average, this may not be true for all Muslim countries. In the last decade, more research papers have been published from Muslim countries. However, there still remains a dearth of studies from many regions, such as Africa (with 18 Muslim-majority countries), which has the highest overall suicide rates as well as male suicide rates. Of the 20 countries where attempted suicide is still criminalized, majority are from Muslim-majority countries. Due to the strong condemnation of suicide in Islam, as well as social stigmatization, awareness raising and open discussion on suicidal behaviors pose huge challenges. The quality of media reporting and its impact on suicidal behavior is under-researched. Further studies are warranted to explore suicidality in the Islamic countries. International, regional, and local bodies should prioritize suicide research in Muslim-majority countries to formulate national suicide prevention strategies for the respective countries.

References

Abdel-Khalek, M. A., & Lester, D. (2024). Suicidal behavior in Egypt. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries.* Springer. https://doi.org/10.1007/978-981-97-2519-9_6

Adra, A., & Duchonova, K. (2024). Suicidal behaviour in the Syrian Arab Republic. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries.* Springer. https://doi.org/10.1007/978-981-97-2519-9_19

Ahmad, A., Saeed, A. K., Feizi, O., Saeed, F., Menon, V., Kar, S. K., Shoib, S., & Arafat, S. M. (2022). Quality of online media reporting of suicidal behavior in Iran during COVID-19 pandemic in reference to the World Health Organization guidelines. *Global Psychiatry Archives*, *5*(1), 70–76. https://doi.org/10.52095/gpa.2022.4883.1047

Aldalaykeh, M., Dalky, H., Shahrour, G., & Rababa, M. (2020). Psychometric properties of two Arabic suicide scales: Stigma and literacy. *Heliyon, 6*(4), e03877. https://doi.org/10.1016/j.heliyon.2020.e03877

Al-Adawi, S., Al-Huseini, S., Shetty, M., Al Abdali, H., & Ganesh, A. (2024). Suicidal behaviour in Oman: Emerging trends and challenges. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries.* Springer. https://doi.org/10.1007/978-981-97-2519-9_14

Arafat, S., Baminiwatta, A., Menon, V., Singh, R., Varadharajan, N., Guhathakurta, S., & Rezaeian, M. (2023b). Prevalence of suicidal behaviour among students living in Muslim-majority countries: Systematic review and meta-analysis. *Bjpsych Open, 9*(3), E67. https://doi.org/10.1192/bjo.2023.48

Arafat, S. M., Menon, V., Hussain, F., & Rezaeian, M. (2022b). Suicidal behavior and suicide research during COVID-19 pandemic in Muslim-majority countries: A rapid review. *Journal of Suicide Prevention, 4*(1), 3–23.

Arafat, S. M. Y. (2022a). Suicide in 18 African Muslim majority countries: High rate, low research. *Psychiatry Research, 316*, 114785. https://doi.org/10.1016/j.psychres.2022.114785

Arafat, S. M. Y., Ahmad, A. R., Saeed, A. K., Menon, V., Shoib, S., & Kar, S. K. (2022c). Quality of media reporting of suicide in Iraq. *The International Journal of Social Psychiatry, 68*(2), 443–448. https://doi.org/10.1177/00207640211003928

Arafat, S. M. Y., Baminiwatta, A., Menon, V., Sharma, P., Htay, M. N. N., Akter, H., Marthoenis, M., & Dorji, C. (2023). Prevalence of suicidal behavior among students in South-East Asia: A systematic review and meta-analysis. *Archives of Suicide Research*, 1–21. https://doi.org/10.1080/13811118.2023.2176272

Arafat, S. M. Y., & Khan, A. R. (2024). Suicidal behavior in Bangladesh. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries.* Springer.https://doi.org/10.1007/978-981-97-2519-9_4

Arafat, S. M. Y., Khan, M. M., Menon, V., Ali, S. A., Rezaeian, M., & Shoib, S. (2021). Psychological autopsy study and risk factors for suicide in Muslim countries. *Health Science Reports, 4*(4), e414. https://doi.org/10.1002/hsr2.414

Arafat, S. M. Y., Marthoenis, M., Khan, M. M., & Rezaeian, M. (2022a). Association between suicide rate and human development index, income, and the political system in 46 Muslim-majority countries: An ecological study. *European Journal of Investigation in Health, Psychology and Education, 12*(7), 754–764. https://doi.org/10.3390/ejihpe12070055

Arafat, S. Y. (2022b). Research on suicide in Muslim majority countries: A bibliometric analysis. *Open Health, 3*(1), 178–186. https://doi.org/10.1515/openhe-2022-0029

Arafat, S. Y., Shoib, S., Marthoenis, M., Kar, S. K., Menon, V., Ittefaq, M., & Kabir, R. (2020). Media reporting of suicide in Muslim countries. *Mental Health, Religion & Culture, 23*(10), 941–944. https://doi.org/10.1080/13674676.2020.1825362

Awaad, R., Quadri, Y., Suleiman, K., Husain, A., Hosseini, Z., Rehman, O., Elzamzamy, K., Abdelrehim, A., Rushdi, R., Hill, T., & Koenig, H. (2023). Islam and suicide: An interdisciplinary

scoping review. *Spirituality in Clinical Practice, 10*(1), 32–51. https://doi.org/10.1037/scp0000311

Ayub, M., Rafiq, B., Tahir, S. M., Imran, N., Naveed, S., & Haider, I. I. (2023). Assessing the quality of media reporting of suicide deaths in Pakistan against international guidelines. *The International Journal of Social Psychiatry, 69*(2), 406–411. https://doi.org/10.1177/00207640221106683

Chaleby, K. S. (1996). Issues in forensic psychiatry in Islamic jurisprudence. *The Bulletin of the American Academy of Psychiatry and the Law, 24*(1), 117–124.

Charfi, F., Ouali, U., & Ben Khelil, M. (2024). Suicidal behaviour in Tunisia. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries*. Springer. https://doi.org/10.1007/978-981-97-2519-9_20

Elhadi, M., Abdulwahed, E. A., & Alsaedi, S. A. (2024). Suicidal behavior in Libya. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries*. Springer. https://doi.org/10.1007/978-981-97-2519-9_11

Eskin, M., AlBuhairan, F., Rezaeian, M., Abdel-Khalek, A. M., Harlak, H., El-Nayal, M., Asad, N., Khan, A., Mechri, A., Noor, I. M., Hamdan, M., Isayeva, U., Khader, Y., Al Sayyari, A., Khader, A., Behzadi, B., Öztürk, C. Ş, Hendarmin, L. A., Khan, M. M., & Khatib, S. (2019). Suicidal thoughts, attempts and motives among university students in 12 Muslim-majority countries. *The Psychiatric Quarterly, 90*(1), 229–248. https://doi.org/10.1007/s11126-018-9613-4

Eskin, M., Palova, E., & Krokavcova, M. (2014). Suicidal behavior and attitudes in Slovak and Turkish high school students: A cross-cultural investigation. *Archives of Suicide Research, 18*(1), 58–73. https://doi.org/10.1080/13811118.2013.803448

Eskin, M., Voracek, M., Stieger, S., & Altinyazar, V. (2011). A cross-cultural investigation of suicidal behavior and attitudes in Austrian and Turkish medical students. *Social Psychiatry and Psychiatric Epidemiology, 46*(9), 813–823. https://doi.org/10.1007/s00127-010-0254-7

Fekih-Romdhane, F., Amri, A., & Cheour, M. (2022). Suicidal ideation, suicide literacy and stigma, disclosure expectations and attitudes toward help-seeking among university students: The impact of schizotypal personality traits. *Early Intervention in Psychiatry, 16*(6), 659–669. https://doi.org/10.1111/eip.13211

Gearing, R. E., & Lizardi, D. (2008). Religion and suicide. *Journal of Religion and Health, 48*(3), 332–341. https://doi.org/10.1007/s10943-008-9181-2

Gholamrezaei, A., Rezapour-Nasrabad, R., Ghalenoei, M., & Nasiri, M. (2019). Correlation between suicide literacy and stigmatizing attitude of nurses toward patients with suicide attempts. *Revista Latinoamericana de Hipertension, 14*(3), 351–355.

Ghuloum, S., & Karim, M. A. (2024). Suicidal behavior in Qatar. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries*. Springer. https://doi.org/10.1007/978-981-97-2519-9_17

Harakact. (2023). *"Islamic countries"—Modern political division of Muslim lands*. Retrieved May 19, 2023, from https://harakact.wordpress.com/2018/11/11/islamic-countries-modern-political-division-of-muslim-lands/

Ibrahim, N., Siau, C. S., Chan, C. M. H., Amit, N., & Chan, L. F. (2024). Suicidal behavior in Malaysia. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries*. Springer. https://doi.org/10.1007/978-981-97-2519-9_12

Isayeva, U., & Isaxanli, H. (2024). Suicidal behavior in Azerbaijan. In S. M. Y. Arafat, M. Rezaeian, & M. M. Khan (Eds.), *Suicidal behavior in Muslim majority countries*. Springer. https://doi.org/10.1007/978-981-97-2519-9_3

Johari, M. A., Shukri, M. Z., Abd, M. A., Karim, M. H., Khazali, A. K., Nasarudin, A. A., Rahimi, M. A., Akmal'Imi, M., Mohamad, M. H., & Razali, S. (2017). Perception of media in reporting suicide cases in Malaysia. Akademia Baru. *Journal of Advanced Research in Social and Behavioural Sciences, 7*(1), 59–67.

Kamboh, S. A., & Ittefaq, M. (2019). Newspaper suicide reporting in a Muslim country: Analysis of violations and compliance with international guidelines. *Journal of Media Ethics, 34*(1), 2–14. https://doi.org/10.1080/23736992.2019.1568252