



CODEN [USA]: IAJ PBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**

SJIF Impact Factor: 7.187

<https://doi.org/10.5281/zenodo.7496698>Available online at: <http://www.iajps.com>*Research Article*

ATTITUDES TOWARD SUICIDE PREVENTION AMONG NON-PSYCHIATRIC PHYSICIANS IN SAUDI ARABIA

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Article Received: November 2022 **Accepted:** November 2022 **Published:** December 2022

Abstract:

Objective: To assess the attitude of non-psychiatric physicians in Saudi Arabia toward suicide prevention.

Methods: A cross-sectional study was conducted over period from 1st February 2022 to 30 April 2022 among non-psychiatric physicians in Saudi Arabia. The target population was convenient sample of non-psychiatric physicians working in primary health care centers and hospitals in Saudi Arabia who accept to share in research. Only those who agreed were included and those who refuse were excluded from research, psychiatric physicians will be excluded too.

Results: Study included 615 participants. The mean age among study participants was 29.64 + 6.94 years with median age of 27 years. Participants' age ranged from 19 to 62 years. Male to female ratio was 1:1. Participants were asked about their highest academic qualification. The most frequent qualification was bachelor of medicine and surgery (n= 428, 69.6%). The median duration of working experience among study participants was 2 years and ranged from 1 to 37 years. The most frequent specialty among study participants was intern (n= 162, 26.3%) followed by resident (n= 159, 25.9%). The majority of study participants studied psychiatric during their undergraduate studies (n= 528, 85.9%). On the other hand, only 231 participants had a psychiatric training during internship (37.6%). There were 27.5% of study participants had a history of mental illness (n= 169). Furthermore, 36.7% of study participants had a family history of mental illness (n= 226). About one third of study participants had history of suicidal thoughts (n= 185, 30.1%). Participants' median scores in attitudes to suicide prevention scale was 48 out of 70. It ranged from 22 to 69 reflecting low to high in attitude positivity. Participants' responses to scale items were mostly strongly disagree reflecting a positive attitude toward suicide prevention.

Conclusion: Participants scores about attitudes to suicide prevention scale was moderate. About one third of study participants had history of suicidal thoughts. These thought were more prevalent among widow participants, master degree participants and resident and general practitioner participants.

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Please cite this article in press Ahmed Abdullah Alharthi et al, *Attitudes Toward Suicide Prevention Among Non-Psychiatric Physicians In Saudi Arabia.*, *Indo Am. J. P. Sci*, 2022; 09(12).

INTRODUCTION:

Nearly one million people die by suicide every year [1], making it a major public health problem across the world. One person would have tried suicide every 1-2 s, and once every 20 s, the attempt would have been successful [2]. Developing countries like Malaysia are not immune to this growing problem. The annual suicide rate in Malaysia was approximately 12/100,000 population, which commensurate to the global annual rate of 16 per 100,000 [1]. There has been a consistent rise in the number of hospitalizations for suicide attempts and suicide fatalities in Malaysia over the last 45 years [3]. According to the World Health Organization (2012), suicide is the second highest cause of death among those aged 15 to 29. This is very concerning statistics, especially because it was shown that suicide is occurring much more often among younger age groups.

Suicides are severely underreported, which is a tragedy considering the many ways in which they are discouraged by cultural, religious, and legal norms. Sixty-four percent of patients who tried suicide saw a doctor in the month before to the attempt, and 38 percent saw a doctor in the week prior to the attempt [4]. Still, since suicide is seen as shameful in many societies, patients may not openly disclose that they want to die. According to the American Psychiatric Association (2018), some warning signs of suicide include a change in behavior, disrupted eating or sleep pattern, feeling of hopelessness, and talking about dying [5-6]. It's possible that some of these symptoms won't make much sense to you.

The International Standard Classification of Occupations [7] places those who work in the health care industry in major group 2, since they provide services in the areas of public health promotion,

disease prevention, and clinical diagnosis and treatment. This includes medical doctors, nurses or midwifery professionals, traditional and complementary medicine practitioners, medical assistants, and veterinarians. Hence, breaking the stigma of suicidal attempts among the health-care professionals is fundamental, as it is a strong hindrance for potential victims to reach out for help.

As for those who had sufficient insight and courage to seek help for their suicidal ideation, the attitude of the health-care professionals who are in contact with them is crucial as it will affect the care and treatment provided. Because of the extreme vulnerability of suicidal patients, it is crucial to evaluate the attitudes of healthcare providers toward these individuals. Previous qualitative research conducted among 32 healthcare professionals in Klang Valley found that these individuals lacked enough knowledge on suicide management and generally held negative views toward suicidal patients [8]. Consistent findings were also found among 228 hospital personnel and 264 community mental health practitioners in Korea [9]. Recent papers have recommended including suicide training as part of health-care curricula in order to mold health-care professionals' positive behaviors in better management of suicidal cases in clinical practice [10, 11], which suggests that the attitude toward suicidal patients among health-care professionals is still poorly advocated.

There is a lack of local data about the attitude of health care providers toward suicide behavior, despite the fact that this attitude is a crucial predictor of the result of therapeutic therapy. Therefore, this study aimed to assess the attitude of non-psychiatric physicians in Saudi Arabia toward suicide prevention.

METHODS:

Study design and setting

A cross-sectional study was conducted over period from 1st February 2022 to 30 April 2022 among non-psychiatric physicians in Saudi Arabia.

Study population

The target population was convenient sample of non-psychiatric physicians working in primary health care centers and hospitals in Saudi Arabia who accept to share in research. Only those who agreed were included and those who refuse were excluded from research, psychiatric physicians will be excluded too.

Study Tools

An electronic self-administered questionnaire was distributed by link to WhatsApp for non-psychiatric physicians who will be invited to share in our research.

The link was open from 1st February 2022 to 30 April 2022, and reminders were sent every 7 days. Free to withdraw from the study at any stage; their information were kept confidential and used for research purposes only.

The questionnaire has items on demographic and lifestyle characteristics (age, gender, marital status, number of work years, specialty and highest academic qualification, having current, past or family history of mental illness, having experience with suicidal ideations, being studied Psychiatry during undergraduate studies, and having psychiatric training during internship).

To achieve the research, purpose a previously validated Questionnaire was used the Attitudes to Suicide Prevention (ASP) scale [12]. It is a self-rated, 14-item, Likert scale which attitudes to Suicide Prevention with good internal consistency (Cronbach's alpha = 0.77) and high test-retest reliability [13]. It has also been used in previous worldwide studies to assess attitudes toward suicides [14]. Each statement invited a response on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". In scoring the questionnaire, a "strongly disagree" was scored 5, "disagree" was scored 4, "Uncertain" was scored 3, "agree" was scored 2 while a "strongly agree" was scored 1. An overall score was calculated by adding the scores from each item (higher scores indicated more positive attitudes)

Administrative Approval

Ethical approval from Eradah Complex & Mental Health Najran Research Committee, Najran, Saudi Arabia was granted before data collection.

Ethical considerations

The study was conducted after explaining the objectives to the participants. Only those who agreed were included and this will avoid physical or emotional harm. Participants were free to withdraw from the study and not completing interview; their information were kept confidential and used for research purposes only. This study was conducted in accordance with the Saudi Law of Ethics of researches on living things.

RESULTS:

Study included 615 participants. The mean age among study participants was 29.64 + 6.94 years with median age of 27 years. Participants' age ranged from 19 to 62 years. Male to female ratio was 1:1. Figure 1 shows distribution of study participants according to gender.

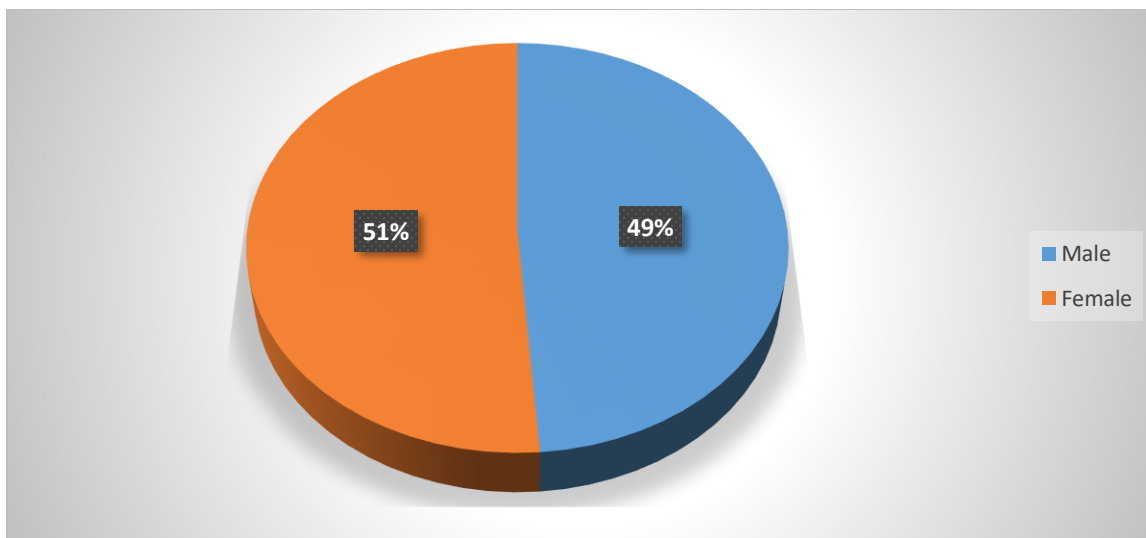


Figure 1: Distribution of study participants according to gender

More than half of study participants were single (n= 364, 59.2%). Figure 2 shows marital status distribution among study participants.

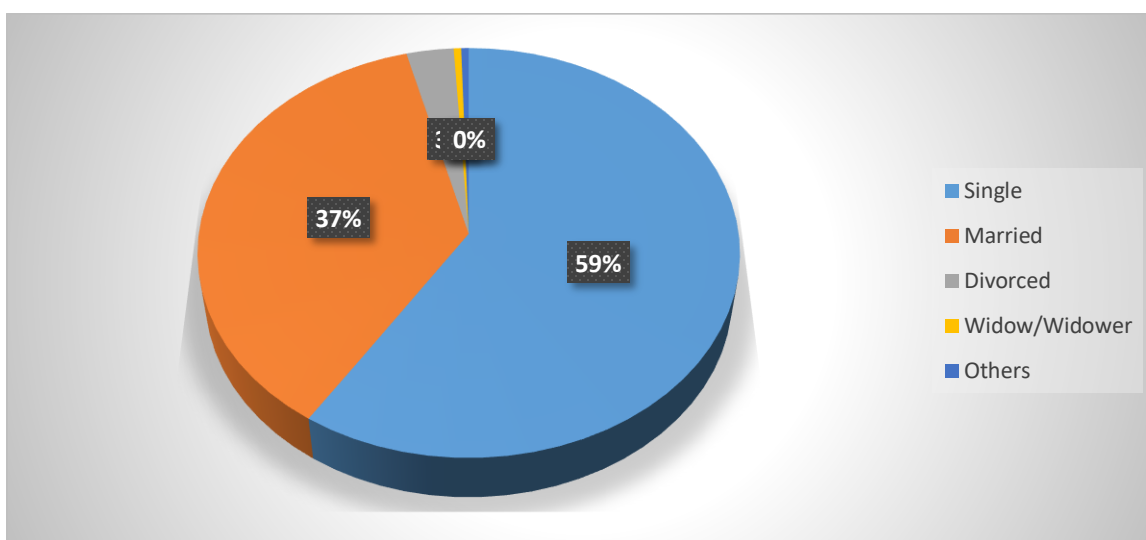


Figure 2: Distribution of study participants according to marital status

Participants were asked about their highest academic qualification. The most frequent qualification was bachelor of medicine and surgery (n= 428, 69.6%) as presented in figure 3.

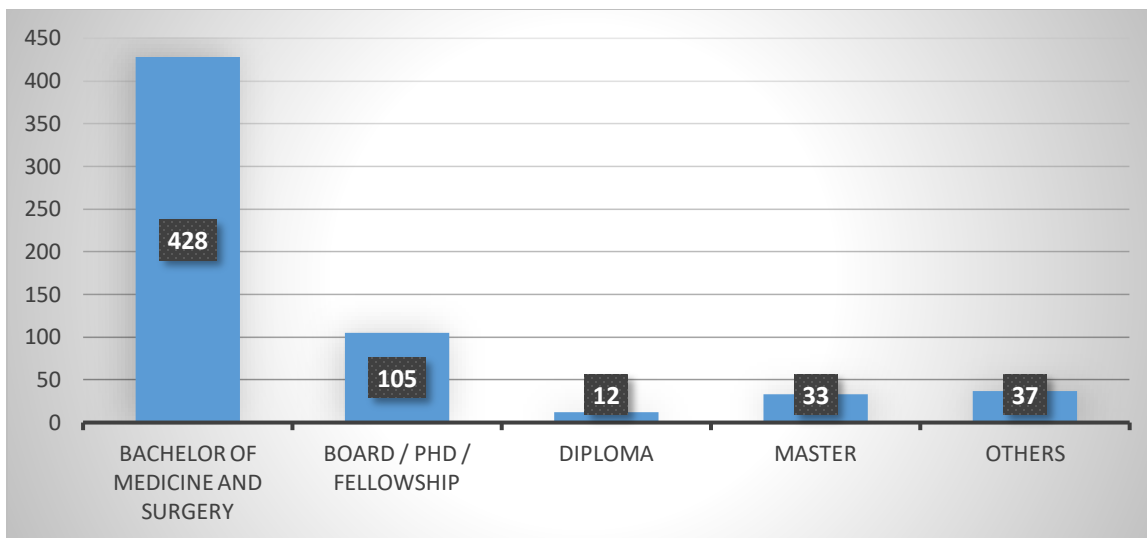


Figure 3: Distribution of study participants according to academic qualification

The median duration of working experience among study participants was 2 years and ranged from 1 to 37 years. The most frequent specialty among study participants was intern (n= 162, 26.3%) followed by resident (n= 159, 25.9%). Figure 4 shows the distribution according to specialty.

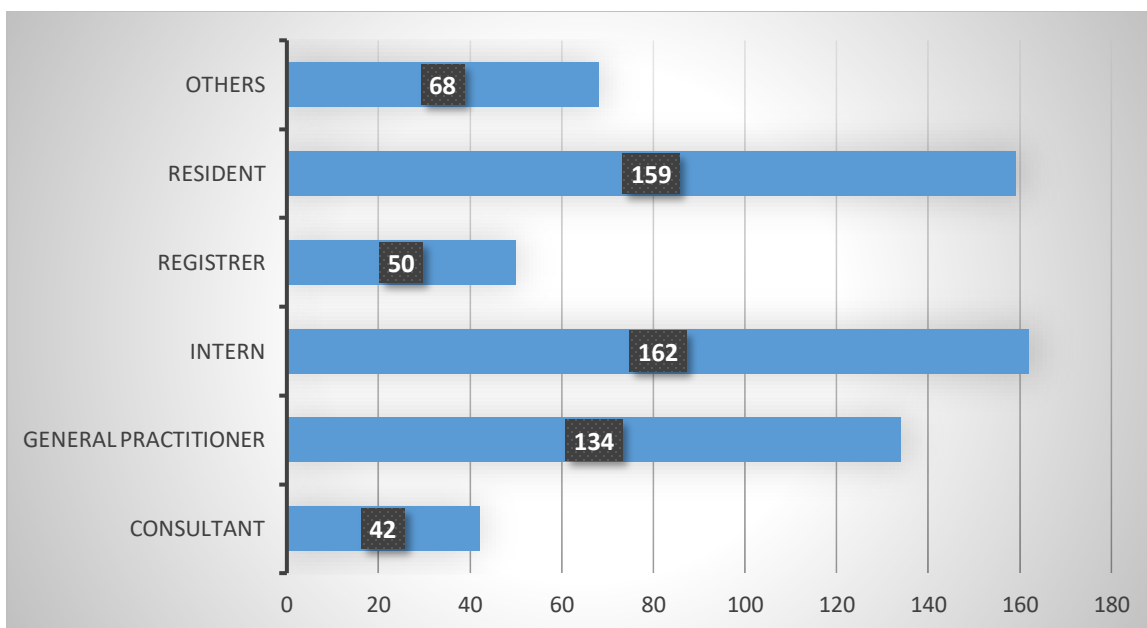


Figure 3: Distribution of study participants according to academic qualification

The majority of study participants studied psychiatric during their undergraduate studies (n= 528, 85.9%). On the other hand, only 231 participants had a psychiatric training during internship (37.6%). There were 27.5% of study participants had a history of mental illness (n= 169). Furthermore, 36.7% of study participants had a family history of mental illness (n= 226). About one third of study participants had history of suicidal thoughts (n= 185, 30.1%).

Participants were asked through attitude to suicide prevention scale. Their responses to scale items is presented in table 1.

Table 1: Participants' responses to attitude to suicide prevention scale items

Item	Response					
		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I recent being asked to do more about suicide	F	179	130	221	64	21
	%	29.1	21.1	35.9	10.4	3.4
Suicide prevention is not my responsibility	F	247	212	88	55	13
	%	40.2	34.5	14.3	8.9	2.1
Making more funds available to the appropriate health services would make no difference to the suicide rate	F	171	213	133	71	27
	%	27.8	34.6	21.6	11.5	4.4
Working with suicidal patients is rewarding	F	54	113	236	157	55
	%	8.8	18.4	38.4	25.5	8.9
If people are serious about committing suicide they don't tell anyone	F	89	136	124	176	90
	%	14.5	22.1	20.2	28.6	14.6
I feel defensive when people offer advice about suicide prevention	F	95	169	202	110	39
	%	15.4	27.5	32.8	17.9	6.3
It is easy for people not involved in clinical practice to make judgments about suicide prevention	F	73	121	167	168	86
	%	11.9	19.7	27.2	27.3	14
If a person survives a suicide attempt, then this was a ploy for attention	F	119	173	137	129	57
	%	19.3	28.1	22.3	21	9.3
People have the right to make their own lives	F	271	128	103	74	39
	%	44.1	20.8	16.7	12	6.3
Since unemployment and poverty are the main causes of suicide, there is little that an individual can do to prevent it	F	122	191	143	121	38
	%	19.8	31.1	23.3	19.7	6.2
I don't feel comfortable assessing someone for suicide risk	F	105	170	129	162	49
	%	17.1	27.6	21	26.3	8
Suicide prevention measures are a drain on resources, which would be more useful elsewhere	F	140	157	179	107	32
	%	22.8	25.5	29.1	17.4	5.2
There is no way of knowing who is going to commit suicide	F	88	231	142	116	38
	%	14.3	37.6	23.1	18.9	6.2

Participants' median scores in attitudes to suicide prevention scale was 48 out of 70. It ranged from 22 to 69 reflecting low to high in attitude positivity. Table 2 shows the mean scores among study participants according to variable groups.

Table 2: Participants scores in Attitudes to Suicide Prevention Scale

Variable		Mean (SD)	P- value
Gender	Male	48 (8)(7)	0.081
	Female	47 (8)	
Marital status	Single	48 (7)	0.031
	Married	46 (8)	
	Divorced	48 (10)	
	Widow/Widower	46 (5)	
	Others	49 (3)	
Academic qualification	Bachelor of Medicine and Surgery	48 (7)	0.002
	Board/PhD/Fellowship	49 (8)	
	Diploma	47 (11)	
	Master	47 (8)	

	Others	45 (7)	
Specialty	Intern	49 (7)	0.003
	General practitioner	47 (7)	
	Resident	47 (7)	
	Registrar	48 (9)	
	Consultant	50 (9)	
	Others	45 (9)	
Studied psychiatry	Yes	48 (7)	0.033
	No	45 (8)	
Psychiatry intern	Yes	47 (8)	0.28
	No	48 (7)	
History of mental illness	Yes	48 (8)	0.0326
	No	47 (7)	
Family history of mental illness	Yes	48 (8)	0.0249
	No	47 (7)	
Suicidal thoughts	Yes	49 (9)	0.0018
	No	47 (7)	

DISCUSSION:

In poor and middle-income countries, where suicide prevention resources are few [15-18], psychiatric experts are commonly tasked with preventing and managing suicidal behavior due to the high incidence of mental illnesses among those who attempt suicide or die by suicide [15-17]. Thus, the identification and management of patients with suicidal behavior or ideation is an important part of psychiatric work that should be considered in the assessment of the quality of psychiatric services. Nevertheless, psychiatrists' perspectives on suicide may affect their openness to identifying and effectively treating patients who exhibit suicidal behavior or thoughts [19]. In order to improve the efficacy of mental health treatments targeted at preventing suicide, it is necessary to evaluate the perspectives of psychiatrists on the topic [20]. However, despite the potential usefulness of understanding the relationship of psychiatrists' attitudes about suicide to the effectiveness of suicide prevention activities, there has been little research about psychiatrists' attitudes about suicide, particularly in low- and middle-income countries [21]. It is possible to see suicidal behavior as a multistep process that begins with suicidal thoughts (which may be expressed verbally or nonverbally) and ends with suicide either successfully completed or aborted [21]. Official statistics are only accessible in 10% of low-income and middle-income nations [22], which account for 85% of the world's suicide, partially reflecting the population of those countries [23]. As a result, we know very little about its epidemiology in Africa. The fact that attempting suicide is a crime in several of these nations, including Nigeria, means that non-fatal suicidal actions go mostly unreported. Those

who attempt suicide but do not seriously hurt themselves almost never seek professional treatment [24].

According to estimates, 793 000 people died by suicide worldwide last year. It's worth noting that 2.70 percent of people will try suicide at some point in their lives [25]. In fact, there may be 20 times as many suicide attempts as actual suicides. This highlights the importance of preventing suicidal behavior (ideation, plan, and attempt) in persons [26].

Clinical practice and the success of any intervention program are influenced by clinicians' levels of competence and attitudes [27]. Since they operate as gatekeepers and often interact with high-risk patients, medical professionals provide a special opportunity for suicide prevention initiatives [28]. Regardless of one's area of expertise, this is true. The higher suicide risk among nurses and physicians may be explained by the fact that these professionals are more likely to hold these beliefs and contemplate suicide in times of personal distress [29].

The opinions of prospective gatekeepers, who provide care to those at risk of suicide [30] and who will be involved in making decisions about interventions [31], may be better understood if we measure their attitudes regarding suicide. The Suicide Opinion Questionnaire (SOQ), the Suicide Attitudes Questionnaire (SUIATT), and the Attitudes Toward Suicide Scale (ATTS)12 are the most widely used instruments for gauging people's opinions and feelings about suicide. The ATTS was used for this investigation because it is shorter (just 37 items), simpler, and more reliable [32]. SOQ and SUIATT, on the other hand, have 100 and

63 items respectively. As an added bonus, the ATTS has been employed in a research comparing two African nations (Ghana and Uganda) with comparable cultures [33]. It was also validated by the same authors in this work, however this validation has not yet been published.

It has been established via research that professionals' unfavorable views about suicidal behavior are linked to inadequate training in suicide prevention, discrimination, and inadequate support services.

There is a robust and favorable correlation between professional training on suicide and positive attitude and result [34], suggesting that such training may enhance medical workers' competency.

CONCLUSION:

Participants scores about attitudes to suicide prevention scale was moderate. About one third of study participants had history of suicidal thoughts. These thought were more prevalent among widow participants, master degree participants and resident and general practitioner participants.

REFERENCES:

- Nazli AI, Ooi YT, Thyagarajan D, Jamaluddin R. Attitude toward Suicidal Behavior: A Cross-Sectional Study among Health-Care Professionals in Northwest Malaysia. *Malaysian Journal of Psychiatry*. 2022 Jan 1;31(1):1-6.
- Nock MK, Borges G, Bromet EJ, Cha CB, Kessler RC, Lee S. Suicide and suicidal behavior. *Epidemiologic reviews*. 2008 Nov 1;30(1):133-54.
- Sinniah A, Maniam T, Oei TP, Subramaniam P. Suicide attempts in Malaysia from the year 1969 to 2011. *The Scientific World Journal*. 2014 Jan 1;2014.
- Ahmedani BK, Stewart C, Simon GE, Lynch F, Lu CY, Waitzfelder BE, Solberg LI, Owen-Smith AA, Beck A, Copeland LA, Hunkeler EM. Racial/ethnic differences in healthcare visits made prior to suicide attempt across the United States. *Medical care*. 2015 May;53(5):430.
- Mandrusiak M, Rudd MD, Joiner Jr TE, Berman AL, Van Orden KA, Witte T. Warning signs for suicide on the internet: A descriptive study. *Suicide and Life-Threatening Behavior*. 2006 Jun 1;36(3):263-71.
- Rudd MD, Berman AL, Joiner Jr TE, Nock MK, Silverman MM, Mandrusiak M, Van Orden K, Witte T. Warning signs for suicide
- Jiao Y, Phillips MR, Sheng Y, Wu G, Li X, Xiong W, Wang L. Cross-sectional study of attitudes about suicide among psychiatrists in Shanghai. *BMC psychiatry*. 2014 Dec;14(1):1-0.
- Wee LH, Ibrahim N, Wahab S, Visvalingam U, Yeoh SH, Siau CS. Health-care workers' perception of patients' suicide intention and factors leading to it: A qualitative study. *OMEGA-Journal of death and dying*. 2020 Dec;82(2):323-45.
- Kim SN, Lee KS, Lee SY, Yu JH, Hong A. Awareness and attitude toward suicide in community mental health professionals and hospital workers. *Journal of preventive medicine and public health*. 2009;42(3):183-9.
- Boukouvalas E, El-Den S, Murphy AL, Salvador-Carulla L, O'Reilly CL. Exploring health care professionals' knowledge of, attitudes towards, and confidence in caring for people at risk of suicide: a systematic review. *Archives of Suicide Research*. 2019 Apr 22.
- Kodaka M, Inagaki M, Yamada M. Factors associated with attitudes toward suicide: among Japanese pharmacists participating in the Board Certified Psychiatric Pharmacy Specialist Seminar. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*. 2013;34(6):420.
- Herron J, Ticehurst H, Appleby L, Perry A, and Cordingley L. Attitudes Toward Suicide Prevention in Front-Line Health Staff. *Suicide and Life-Threatening Behavior* 3. 2001 Fall;31(3):342-7.
- Appleby L, Morriss R, Gask L, Roland M, Perry B, Lewis A, et al. An educational intervention for front-line health professionals in the assessment and management of suicidal patients (the STORM project). *Psychol Med* 2000;30:805-12.
- Nebhinani N, Jagtiani A, Chahal S, Nebhinani M, and Gupta R. Medical students' attitude toward suicide prevention An exploratory study from North India. *Medical Journal of Dr. D.Y. Patil University*. 2017;10 : 3 : 277-280.
- Mann JJ: A current perspective of suicide and attempted suicide. *Ann Intern Med*. 2002, 136: 302-311.
- Bertolote JM, Fleischmann A, De Leo D, Wasserman D: Psychiatric diagnoses and suicide: revisiting the evidence. *Crisis*. 2004, 25: 147-155.
- Phillips MR, Yang G, Zhang Y, Wang L, Ji H, Zhou M: Risk factors for suicide in China: a national case-control psychological autopsy study. *Lancet*. 2002, 360: 1728-1736.
- Shan HH: Suicide Injury and prevention. *J Prev Med*. 2005, 17: 10-12. (in Chinese)
- Bagley C, Ramsay RF, Diekstra RFW, Maris R, Platt S, Schmidtke A, Sonneck G: Attitudes

- toward suicide, religious values and suicidal behavior: evidence from a community survey. *Suicide and its Prevention: The Role of Attitude and Imitation*. 1989, Leiden, Netherlands: Brill, 78-90.
20. Kodaka M, Postuvan V, Inagaki M, Yamada MA: Systematic review of scales that measure attitudes toward suicide. *Int J Soc Psychiatry*. 2011, 57: 338-361.
 21. Saunders KEA, Hawton K, Fortune S, Farrell S: Attitudes and knowledge of clinical staff regarding people who self-harm: a systematic review. *J Affect Dis*. 2012, 139: 205-216.
 22. Mars B, Burrows S, Hjelmeland H, Gunnell D. Suicidal behaviour across the African continent: A review of the literature. *BMC Public Health*. 2014;14:606.
 23. Krug EG, Dahlberg TT, Mercy JA, Zwi AB, Lozano R. World report on violence and health [homepage on the Internet]. Geneva: World Health Organisation; 2002 [cited 2022 Dec 08]. Available from: https://apps.who.int/iris/bitstream/handle/10665/42495/9241545615_eng.pdf
 24. Adinkrah M. Anti-suicide laws in nine African countries: Criminalization, prosecution and penalization. *Afr J Criminol Justice Stud*. 2016;9:279-292.
 25. World Health Organisation. Mental health. Global Health Observatory: Suicides rates [homepage on the Internet]. 2016 [cited 2022 Dec 08] Available from: http://www.who.int/gho/mental_health/suicide_rates/en/
 26. World Health Organization. Mental health: Suicide prevention [homepage on the Internet]. 2014 [cited 2022 Dec 08]. Available from: http://www.who.int/mental_health/suicide-prevention/en/
 27. Saunders KE, Hawton K, Fortune S, Farrell S. Attitudes and knowledge of clinical staff regarding people who self-harm: A systematic review. *J Affect Disord*. 2012;139:205-216.
 28. Yousuf S, Beh P, Wong PWC. Attitudes toward suicide following an undergraduate suicide prevention module: Experience of medical students in Hong Kong. *Hong Kong Med J*. 2013;19:377-385.
 29. Karman P, Kool N, Poslawsky I, Van Meijel B. Nurses' attitudes toward self-harm: A literature review. *J Psychiatr Ment Health Nurs*. 2015;22:65-75.
 30. Batterham PJ, Calear AL, Christensen H. Correlates of suicide stigma and suicide literacy in the community. *Suicide Life Threat Behav*. 2013;43(4):406-417.
 31. Stecz P. Psychometric evaluation of the questionnaire on attitudes towards suicide Poland. *Curr Psychol*. 2019.
 32. Kodaka M, Poštuvan V, Inagaki M, Yamada M. A systematic review of scales that measure attitudes toward suicide. *Int J Soc Psychiatry*. 2011;57(4):338-361.
 33. Hjelmeland H, Akotia CS, Owens V, et al. Self-reported suicidal behaviour and attitudes toward suicide and suicide prevention among psychology students in Ghana, Uganda and Norway. *Crisis*. 2008;29(1):20-31.
 34. Kisely S, Campbell LA, Cartwright J, Bowes MJ, Jackson L. Factors associated with not seeking professional help or discussing intent prior to suicide: A study of medical examiners records in Nova Scotia. *Can J Psychiatry*. 2011;56(7):436-451.