

Suicide ideation and intent in Malaysia: A review of the literature

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Abstract

The aim of this paper was to review the literature on suicide ideation and intent in Malaysia. PsyINFO, PubMed, Medline databases from 1845 to 2012 and detailed manual search of local official reports from Ministry of Health, Malaysian Psychiatric Association and unpublished dissertations from 3 local universities providing postgraduate psychiatric training, were included in the current review. A total of 13 studies on suicide ideation and intent in Malaysia were found and reviewed. The review showed that research on suicide ideation and intent in Malaysia was fragmented and limited, at best. Approximately 50% of existing research on suicide ideation and intent simply focused on sociodemographic data. Fifty-four percent of the data were obtained from hospitals. No study has been conducted on treatment and interventions for suicide ideation and intent. None of the studies used validated suicide scales. The impact of culture was rarely considered. It was clear from the review that for researchers, clinicians and public health policy makers to gain a better understanding of suicide behavior especially suicide ideation and intent in Malaysia, more systematic and empirically stringent methodologies and research frameworks need to be used.

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1. Introduction

Almost one million people die from suicide annually, and the average annual suicide rate is 16 per 100,000 globally [1]. By the year 2020, the WHO estimates approximately 1.53 million people or nearly 3% of all world deaths would be due to suicide, and 10–20 times more people would attempt suicide worldwide. This represents on an average one death every 20 seconds and one attempt every 1–2 seconds [2].

In Malaysia, The National Health and Morbidity Survey, Ministry of Health Malaysia [3] showed that 1288 (6.3%) of 36,519 respondents reported having suicidal ideation. The youngest age group (16–19 years old) had the highest suicidal ideation rate at 11.4%, followed by the 20–24 years age group, with 10.8% reporting having had suicide ideation. The Malaysian Psychiatric Association [4] also estimated that seven people attempt suicide daily in this country. Reports on admissions and death in government hospitals in Malaysia due to suicide attempts showed a constant rise from the year 1999 to 2007, with patients' age ranging mostly from 12 to 24, and

more females than males. In the year 2007, the National Suicide Registry [5], reported that the cases of completed suicide from July to December, 2007 were 113, with 73 men and 31 women. Chinese made up the majority (43%) followed by Indians (29%) and Malays (11%). The youngest person who committed suicide in 2007 was 12 years old and the oldest was 93. Meanwhile in 2010, there were 445 suicidal cases (347 males and 98 females) reported for the first 8 months of 2010 as compared to 290 cases in 2008 [6].

Suicidal behavior is indeed a growing cause for concern in Malaysia since suicide rates have increased by 60% over the past 45 years [4]. Malaysia also has a higher suicide rate which is approximately 12 per 100,000 compared to neighboring countries such as Singapore with 10 per 100,000 and Thailand with 7.3 per 100,000 [7]. It is also a growing global public health concern since self-inflicted injuries represent 1.4% of the global burden of disease worldwide in 2002 and are expected to increase to 2.4% by 2020 [1]. In Malaysia, 30,000 family members or friends were estimated to be negatively affected directly or indirectly from suicidal acts every year [8].

With suicidal behavior on the rise in Malaysia, empirical research has an important role to play in shedding more light on this problem and its possible solutions. To date, however, very little systematic review of research on this area has been

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undertaken. Attempting to address this gap, our paper summarizes the results of a systematic literature review of suicide ideation and intent in Malaysia and identifies future directions for research, public health policy and clinical intervention.

2. Methods

2.1. Selection of studies

Studies on suicide ideation and intent in Malaysia were identified after a comprehensive search of the biggest electronics databases PsycINFO (1845–present), MEDLINE (1950–present) and PubMed (1951–present). Manual search of local official reports from Ministry of Health and Malaysian Psychiatric Association was also undertaken. Local journals in Malaysia, such as the *Journal of Medicine and Health Sciences*, *Malaysian Journal of Psychiatry* and *Malaysian Journal of Pathology* were also reviewed. Finally, unpublished theses and abstracts presented in conferences were obtained from libraries of three major universities in Malaysia with medical schools.

Key words used in the search were “suicide and Malaysia.” The use of generic key words was intentional in order to capture as many published papers as possible. These key words were selected by looking at the frequency used in most of the papers collected early in the process of review and they yielded 39 citations in PsychINFO, 44 in Medline and 52 in PubMed. One hundred four studies were excluded leaving 31 articles related to suicidal behavior. However, 29 articles on suicidal behavior were excluded since they were not studies on suicide ideation/intent. Fig. 1 presents the process flow that was undertaken for our literature search.

Searches were refined by identifying studies published in English, which included descriptive, cross-sectional, experimental studies and reviews. Two published journal articles on suicide ideation and intent were found to be suitable for the review. An additional five abstracts from conference books, three studies from local university libraries and three studies from unpublished theses were included. The comprehensive literature search yielded 13 studies on suicide ideation and intent in Malaysia deemed acceptable to be included in the review (see Fig. 1).

2.2. Review themes or categories

Table on review of suicide ideation and intent will be presented showing the following important features of relevant studies including: (a) study number and reference, (b) methodology used, (c) number of participants, (d) gender, (e) age, (f) marital status, (g) representative of the ethnicity, (h) education level, (i) employment status, (j) psychiatric diagnosis given, (k) method used for suicidal behavior and finally (l) reasons for suicidal behavior.

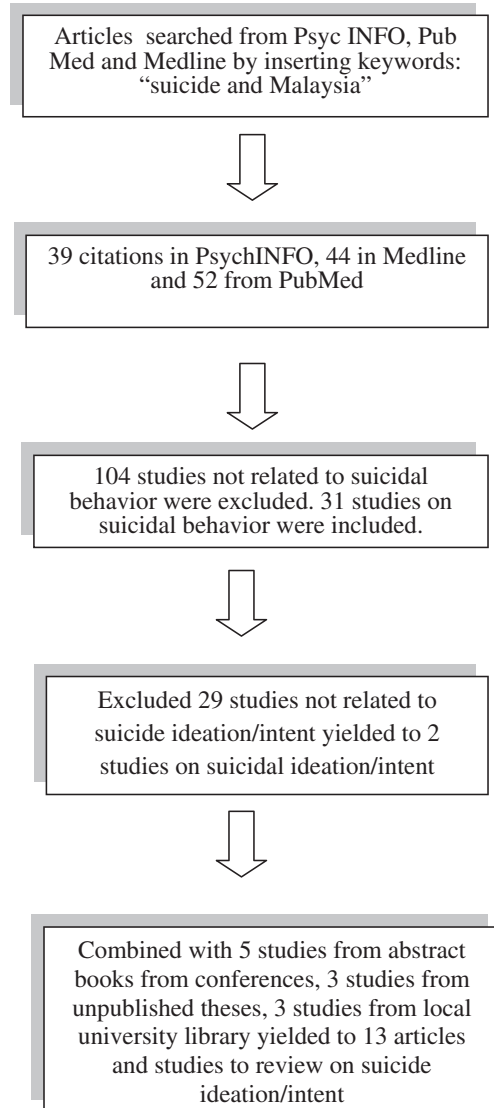


Fig. 1. Flowchart of the reviewing process.

It was important that information gathered from the studies during the review could provide some direction for future research. An asterisk (*) was used to identify studies that utilized a recognized psychological instrument to measure suicide ideation and intent. This was of particular interest to authors as a way of identifying suicidal behavior scales that have already been used and/or validated for use in the Malaysian context. Study “methodology” (see Table 1, column 2) was included to show the range of methods used by previous researches of suicide ideation and intent in Malaysia. Target groups were identified to give a sense of the sample covered by these studies. Sample size is also noted since larger sample size gives more reliable results than smaller sample sizes ($n < 30$). Since Malaysia is a multiethnic society, ethnicity of study participants was also included. Information on sex and age distribution would also for inform recommendations on intervention program especially in schools and other hospitals. Marital status, education level

and employment status information were reported to identify trends that may possibly indicate whether these can indeed be protective factors behind suicidal behavior as reported widely in the Western literature. Psychiatric diagnosis was also noted to identify types of mental illness reported by patients who were involved in suicidal behavior, therefore early diagnosis and prevention can be done. Knowing the methods used in suicidal is useful for future preventive work and finally, the reasons for suicidal behavior will be useful for future research especially in the area of risk and protective factors.

3. Results

Thirteen studies that were published from 1997 to 2011 fulfilled the criteria for inclusion on research on suicidal ideation and intent in Malaysia (see [Table 1](#)). A total of 26,051 subjects were represented across the 13 studies. The sample size in each study ranged from 50 (studies 2 and 6) to 20,552 (study 13). Six of 13 were studies conducted on subjects who visited doctors or who were admitted due to suicide attempts. There were more female subjects in seven studies (see [Table 1](#), studies 1a, 5, 6, 8, 10, 11 and 12); with the reverse happening (more males) in two other studies (studies 2 and 7). Three studies (studies 4, 9 and 13) did not mention the sex distribution of the subjects, and one study (study 3) conducted in prison was only represented by male subjects. Scales to measure suicidal behavior were used in 10 studies (indicated by an asterisk on top of these numbers, 1, 3, 4, 5, 6, 7, 8, 10, 11 and 12) but none of these scales were validated for use in Malaysia. The age of subjects were reported in eight studies ranging from less than 19 years to more than 50 years old. In terms of marital status, 218 subjects were singles, 173 were married, and 62 were divorced, separated or widowed with 8 studies not including the marital status of the subjects (see [Table 1](#)). On ethnicity, Malays were represented by 2601 subjects followed by Chinese ($N=1468$), Indians ($N=913$) and finally other ethnicities ($N=100$). In terms of educational level and employment status, 5072 of the subjects had secondary level of education with four studies without the information on education level and 254 subjects were employed, 4509 were students with 6 studies without the employment status of the subjects. Three hundred twenty-two subjects had some form of mental illness and subjects with some form of neurotic disorders were the highest in number ($N=106$) followed by substance abuse ($N=102$). One hundred forty four subjects had attempted suicide using various methods such as poisoning, hanging and cutting. Reasons for suicidal behavior included depression, wanting to relieve themselves of pain or discomfort or problems related to heroin or substance abuse (174 subjects).

Peng and Chia [9] studied 124 suicide attempters and reported that 11 (8.8%) of them had high-risk scores and 55 (44.4%) had medium-risk scores on Suicide Intent Scale and

there was a strong correlation between suicide intent scores and depression scores. Zuraida and Ahmad [20] concluded religious salience as a protective factor against suicide ideation. Clinically depressed patients who were religiously salient scored lower in suicide ideation score compared to non-religiously salient patients. Habil [10] found that 19 (38%) of 50 heroin dependents in his study expressed some form of suicidal tendencies. Meanwhile Azizul [11] reported that of 150 prisoners in his study, 15 (10%) had a wish to die and their suicide ideation scores were moderately correlated with degree of depression. A total of 3 (5%) type 2 diabetes mellitus patients had suicidal ideation and 11 (18%) with suicidal ideation and depression. Both depression and suicide ideation were highly associated with each other [16]. Meanwhile 13 (18.6%) of 70 migraine patients were found to have suicidal ideation traits as compared with those who did not have migraine in the control group with 59 (84.6%) of those with suicidal ideation being females [19]. Sharifah [15] found a correlation between suicidal ideation scores and depression scores of schizophrenic inpatients at Kuala Lumpur Hospital. The study also showed a significant positive relationship between history of previous suicide attempts, depressive sub-scores and suicidality. Finally, in the study of 4500 school adolescents, 315 (7%) adolescents were found to be considering attempting suicide seriously. Female adolescents rather than male adolescents were more likely to put their suicidal thoughts into action [18].

In summary, suicide ideation/intent among suicide attempters, heroin dependents, psychiatric patients, school students, prisoners and patients with diabetes or migraine indicates that rates of suicide ideation/intent are noticeable in these populations. Depression is also found to be strongly associated to suicidal ideation/intent in most of the studies. These findings indicate that severity of depression may contribute to higher rates of attempted suicide, repeated suicide attempts and finally completed suicide. Awareness by health professionals and community of people's suicide ideation/intent would help them provide better access of psychiatric and psychological services that may result to overall reduction in the rate of suicidal behavior.

4. Discussion

It is evident from this review that research on suicide ideation/intent in Malaysia is quite limited in areas like research design, statistical methodology, instrumentation and intervention.

4.1. Limitations in the study of suicidal behavior in Malaysia

1. Malaysia is a multiracial society with Malays (54%), Chinese (25%), Indian (7.5%) and other ethnicities (13.5%). However, the impact of ethnicity on suicide ideation/intent has not been studied systematically. For example, the use of Western scales has not been

Table 1
Studies on suicidal ideation/intent in Malaysia.

Study	Methodology	Sample	Gender (N)	Age	Marital status	Ethnicity (%)	Education level	Employment	Psychiatric diagnosis	Method for suicidal behavior	Reasons
*1a. Peng et al. (1997) [9]	Hospital admission	124	F (94)	11–15 (3)	MR (49)	IN (64)	P (30)	E (82)	Substance use	Poisoning (114)	Claimed accidental (5) Relief of discomfort (9) Intent self-harm (105) Psychotic (5)
			M (30)	16–20 (39)	SL (64)	CH (35)	S (85)	U (33)	Disorder (5)	Injury (8)	
				21–25 (28)	D (8)ML (21)	OT (4)	T (8)	ST (9)	Schizophrenia	Both (2)	
				26–30 (26) 31–35 (16) 36–40 (7) 41–45 (1) 46–50 (1) 51–55 (2) >55 (1)	C (3)		NN (1)		Major depression(7) Affective Disorder (2) Dysthymic Disorder (23) Affective Anxiety Disorders (3) Adjustment disorders (3) NG		
2. Habil (1998) [10]	Hospital visit	50	M (47)	<19 (1)	SL (28)	CN (18)	P (6)	U (20)	NG	Overdose/ Poisoning (7) Hanging/ cutting (8) Multiple methods (5)	Heroin Related problems (44) Depression (3) HIV positive (3) NG
			F (3)	20–29 (14)	MR (20)	ML (22)	S (42)	E (30)			
				30–39 (15)	SP/D (2)	IN (9)	T (2)				
*3. Azizul (2001) [11]	Prison	150	M (150)	>40 (20) 20–29 (49) 30–39 (64)	SL (80) MR (44)	OT (1) ML (93) CH (23)	P (35) S (107)	U (56) E (94)	Antisocial Personality disorder (24) Borderline personality disorder (4) Major depressive disorder (9) Adjustment disorder (7) Dysthymic disorder (1) Schizophrenia (1) Substance abuse (105)	NG	
*4. Hanizam et al. (2003) [12]	School	233	NG	40–49 (36) 50–59 (1) 17	D/SP (26) NG	IN (22) OT (12) NG	T (4) IE (4) S (233)	NG	NG	NG	NG
*5. Aishvarya et al. (2003a) [13]	University	139	F (90) M (49)	22–25	NG	NG	T (139)	NG	NG	NG	NG
*6. Aishvarya et al. (2003b) [14]	School	50	F (26) M (24)	NG	NG	NG	NG	NG	NG	NG	NG
*7. Sharifah (2003) [15]	Hospital admission	70	M (38)	<21 (2)	SL (45)	ML (29)	P (10)	U (40)	Schizophrenia (70)	NG	NG
			F (32)	21–30 (17) 31–40 (25) 41–50 (22) >50 (4)	MR (13) D/W (12)	CH (23) IN (18)	S (54) T (6)	E (27) HW (3)			

*8. Ong (2004) [16]	Hospital visit	62	M (25) F (37)	30–34 (2) 35–39 (2) 40–44 (5) 45–49 (2) >50 (51)	SL (1) MR (47) W (14) OT (1)	ML (29) CH (21) IN (11) NN(5)	P (20) S (27) T (10)	U (41) E (21)	NG	NG	NG
9. Maniam (2005) [17]	Primary care clinic	NG	NG	NG	NG	NG	NG	NG	NG	NG	NG
*10. Paul (2005) [18]	School	4500	F (2411) M (2089)	12–19	NG	ML (2335) CH (1312)	S (4500) IN (771)	ST (4500) OT (82)	NG	NG	NG
*11. Tan et al. (2006) [19]	Hospital	70	F (59) M (11)	12–19	NG	ML (55) IN (8) CH (7)	P (2) S (24) T (44)	NG	NG	NG	NG
*12. Zuraida et al. (2007) [20]	Hospital	51	M (16) F (35)	NG	NG	CH (29) ML (17) IN (10)	NG	NG	Major depression/bipolar depression (51)	NG	NG
13. Maniam et al. (2011) [21]	General population	20552	NG	NG	NG	NG	NG	NG	NG	NG	NG

N, number; U, unemployed; D, divorced; BJ, Bajau; SP, separated; SB, Sabahan; NG, not given; ST, students; PL, polygamy; IND, Indonesian; F, female; IB, Iban; CN, Chinese; NA, not available; M, male; BD, Bidayuh; IN, Indian; NN, none; OT, others; NK, not known; ML, Malay; C, cohabitant; P, primary; E, employed; SL, single; FR, foreigner; S, secondary; IE, informal education; MR, married; HW, housewife; T, tertiary; W, widow; KD, Kadazan; V, vocational.

* Scale for suicidal behavior used.

validated for use by non-Western ethnicities in Malaysia. Moreover, there is no study on suicide ideation/intent of other ethnicities in Malaysia. It will be interesting to explore suicide ideation/intent of other indigenous peoples in West Malaysia such as the Negritos, Senoi and Proto Malays and other ethnic groups in East Malaysia such as Dayak, Dusun, Kazadan, Bajau and others.

- In terms of sample size, studies had inadequate sample sizes which might not report reliable results. The impact of gender and sex (being male or female) has also been mostly overlooked.
- Studies have not used valid and reliable measurements for measuring suicide behavior. While Reasons For Living Inventory (RFL), Beck Suicidal Ideation Scale (BSI) and Beck Intent Scale (BIS) have been used in studies on suicide ideation in Malaysia, no attempt has been done to establish these scales' reliability and validity for use in Malaysian context. It is important that cultural norm has to be taken into consideration, and the affect of the cut-off score of some of the instruments for measuring suicidal behavior in Malaysia. Since these measures were derived from a Western perspective of understanding and investigation, these measures can be inaccurate consequently affecting the interpretation of results.
- A major gap in suicide research is in the area of treatment. There is no single study on treatments or effectiveness of risk management policies addressing suicidal ideation/intent. There are several reasons for it. One is that there is no specialised treatment/research facility for this difficult clinical group; the other could be due to lack of training/knowledge among the mental health professionals in conducting psychotherapy research especially in high-risk population.

4.2. Future directions in research of suicidal behavior in Malaysia

Future research should focus on developing sound empirical research design and methodologies for studying suicide ideation/intent. This should include validating established instruments or measures for use in the Malaysian context. We have started this process in Universiti Kebangsaan Malaysia. In addition, clinical and evaluation studies on treatment in the form of pharmacotherapy or psychological therapy ought to be included. There is also a need for researchers to focus on genetic/biological studies on suicidal behavior which is lacking in Malaysia. The impact of gender needs to be included in the studies. The impact of cultural differences on suicide behavior remains an interesting area of study in the Malaysian context and will benefit from a more systematic and empirical approach. Moreover, other ethnic groups and aborigines should be included for comparison with the three main ethnicities in Malaysia. Finally, there should be more effort to reach a wide range of

research participants so that prevention of suicidal behavior can be planned at different levels.

5. Conclusion

If done more systematically, research on suicide ideation and intent in Malaysia can shed light on the prevention and treatment of suicidal behavior in Malaysia. Addressing the problem is a major public health concern and not to be taken lightly. Suicide behavior contributes to a decrease in productivity and increase in national expenditure; and sound empirical research on suicidal behavior is an important element to suicide management.

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