

Original Article

What Do Scoping Reviews Tell Us About Suicide and Its Prevention? A Preliminary Meta-review

Mohsen Rezaeian¹

1- (Corresponding author) Prof., Dept. of Epidemiology and Biostatistics, Occupational Environmental Research Center, Medical School, Rafsanjan University of Medical Sciences, Rafsanjan, Iran, ORCID: 0000-0003-3070-0166. Tel: (034) 31315123, Fax: (034) 31315123, E-mail: moeygmr2@yahoo.co.uk

Abstract

Background and Objectives: Scoping review is a type of rather new review study which can especially design for complex biomedical issues such as suicidal behavior. The chief aim of the current preliminary meta-review was to determine what scoping reviews tell us about suicide and its prevention.

Materials and Methods: In this preliminary meta-review, PubMed search engine was searched by using "scoping" and "suicide" as the main keywords that should be required to appear within the title and the abstract of the article.

Results: Twenty one articles were retrieved and from them, eleven articles were included in the current study. The results highlight that scoping review has been entered the area of suicide research since 2013, and since then its usage has been flourishing. The topics of the retrieved papers included the epidemiology of suicidal behavior in Low and Middle-Income Countries (LMICS), migrants from these countries, indigenous communities, and some other complex issues in the area of suicide research.

Conclusion: Given the suitability and flourishing use of scoping review in the area of suicide research, it would be wise to figure out a rather robust and comprehensive methodology for such studies and to encourage its usage especially in LMICS.

Keywords

Scoping review, Meta-review, Suicide, Low and Middle-Income Countries (LMICS)

Received: 01/06/21

Revised: 15/07/21

Accepted: 30/07/21

Conflicts of interest: None

Funding: None

Cite this article as:

Rezaeian M. What Do Scoping Reviews Tell Us About Suicide and Its Prevention? A Preliminary Meta-review. *J Suicid Prevent.* 2021 (Jun); 3: 45-50. e20210005

*This work is published under CC BY-NC-SA 3.0 licence.

Introduction

Scoping review is well-suited for the topics for which there has not been a systematic review already [1]. There are also other characteristics of a scoping review that especially make it different compared with a systematic review. One of the characteristics is that a scoping review works on the broader issues than a systematic

review which is more focused [2]. The second one is that a scoping review is a rapid review whilst a systematic review is a more time-consuming one that sometimes might take up to two years [3]. The third one is that a scoping review synthesizes all retrieved evidence usually without considering their quality whilst in a systematic review there are well-defined criteria for including high-quality articles [2].

As a result, it is suggested that scoping reviews can be considered as the hypothesis-generating studies whilst systematic reviews as the hypothesis-testing studies [4]. These characteristics of the scoping review studies make their usage in the area of complex biomedical topics such as suicide behavior more appropriate. Given the complex nature of suicidal behavior, the chief aim of the current preliminary meta-review was to determine what scoping reviews tell us about suicide and its prevention.

Methods

The current study is a preliminary meta-review study. In May 2018, PubMed search engine was searched by using “scoping” and “suicide” as the main keywords that should be required to appear within the title and the abstract of the article. Twenty-one articles were retrieved. Out of which, five were dealing with mental

health disorders or mental health promotion [5-9], two with assisted suicide [10, 11], and two just reporting a research protocol in the area of suicide research [12, 13]. Therefore, these nine articles were excluded from the study. Furthermore, one article has been indexed twice in PubMed [14, 15]. The only difference between the two versions of the article was the month of publication, therefore the second version of the article was included in the current study [15]. As a result, 11 articles were included in the present study [15-25].

Results

Table 1 demonstrates the different characteristics of 11 articles that have been included in the current study. These characteristics included: First author, title, journal, year, methods, the main results, and the main suggestions by the authors of the retrieved articles.

Table 1. Different characteristics of 11 scoping review studies included in the current study

First author/Title/Journal/Year	Methods (Dates, Language, and Search engines)	Main results	Main suggestions made by the authors
Saigle V & Racine E. Ethical challenges faced by healthcare professionals who care for suicidal patients: a scoping review. <i>Monash Bioeth Rev.</i> 2018	All English or French articles published before May 5, 2015. PUBMED.	52 articles are included and the following findings were identified: "Making clinical decisions for patients in acute care or when presented with specific circumstances"; "issues arising from therapeutic relationships in chronic care", and "organizational factors".	Further research, mainly with a focus on "difficulties faced by healthcare professionals and the development of solutions", is needed.
Shekhani SS, et al. Suicide and deliberate self-harm in Pakistan: a scoping review. <i>BMC Psychiatry.</i> 2018.	All English articles published before December 2016. Applied Social Sciences Index and Abstracts (ASSIA), Cochrane Trials Register (CRG), CINAHL, National Library of Medicine Gateway (NLMG), EMBASE, PUBMED, PSYCHINFO, Social Science Citation Index and Science Citation Index (SCI), Pakmedinet.com plus grey literature.	110 articles are included and the following findings were identified: "Most studies were descriptive in nature", "the majority of the studies were from urban areas", "gender differences and age were predominantly reported", "the three most common methods for suicides were hanging, poisoning and use of firearms."	Further research, mainly with a focus on "more robust analytical research designs", is needed.
Thapaliya S, et al. Suicide and self-harm in Nepal: A scoping review. <i>Asian J Psychiatr.</i> 2018.	All articles published before December 2016. PUBMED and Google Scholar.	20 articles are included and the following findings were identified: "Most of the data available till date are hospital based and either cross-sectional or retrospective", "some of the studies have relied on mortality statistics whereas few have done community based screening", "higher rate among women, younger age group, marginalized, migrant workers and disaster affected population."	Further research, mainly with a focus on more robust "longitudinal follow-up and qualitative designs", is needed.
Tabb KM, et al. The burden of suicidal ideation among persons with type II diabetes: A scoping review. <i>J Psychosom Res.</i> 2017.	All English articles published before March 2017. PubMed, PsycINFO, CINAHL, Web of Science, and Google Scholar.	10 articles are included and the following findings were identified: "The prevalence of suicidal ideation ranging from 2.5-51.4% with a median prevalence of 18.6% among adults with diabetes", "across the five studies reporting the associated risks, all but one study found a significant risk for persons with diabetes to endorse suicidal ideation and only three studies adjusted for depression."	Further research, mainly with a focus on "to investigate potential mechanistic pathways of suicidality among persons with diabetes", is needed.
Murphy AL, et al. A scoping review of community pharmacists and patients at risk of suicide. <i>Can Pharm J (Ott).</i> 2017.	The exact detail was provided in Appendix 1 which was not available on the Journal's website. CINAHLs; Embase; MEDLINE; PsycINFO; Web of Science; International Pharmaceutical Abstract and grey literature.	35 articles are included and the following findings were identified: "Education and training to impact knowledge and attitudes", "gatekeeping of medication supply", "collaboration and integration", and "role perception."	Further research, mainly with a focus on "pharmacists' roles in the care of people at risk for suicide", is needed.
Struszczyk S, et al. Men and suicide prevention: a scoping review. <i>J Ment Health.</i> 2017.	All English articles published before from 1980 to2016. CINAHLs; Embase; MEDLINE; PsycINFO; and Open Grey.	22 articles are included and the following findings were identified: "Male suicide prevention interventions", "factors or coping strategies that interrupt the suicidal process in men", "men's perspectives on service provision."	Further research, mainly with a focus on "examining the perspectives of suicidal middle-aged men and their close family and friends", is needed.
Redvers J, et al. A scoping review of Indigenous suicide prevention in	All English articles published from 2004 and 2014.	95 articles are included and the following findings were identified: "19 articles discussed specific suicide-related interventions and 7 of these described program evaluation	Further research, mainly with a focus on" youth suicide intervention", is needed.

circumpolar regions. Int J Circumpolar Health. 2015.	Medline, SCOPUS, PubMed, JSTOR, Cochrane Library, Science Citation Index, PsycINFO and Google Scholar.	methods and results in detail", "the majority of publications on specific interventions were found in North American countries", and "the majority of prevention or intervention documentation was found in supporting grey literature sources."	
Jordans MJ, et al. Suicide in South Asia: a scoping review. BMC Psychiatry. 2014.	All articles published from 2002 to 2012. PubMed, PsycINFO, EMBASE plus grey literature.	114 articles are included and the following findings were identified: "Reported suicide rates varied widely from 0.43/100,000 to 331.0/100,000", "many studies were of poor quality or not representative", "the majority of studies failed to explicitly define suicide" and "poisoning and hanging were consistently the most common methods of suicide on the sub-continent."	Further research, mainly with a focus on "establishing new, or evaluate existing national suicide surveillance systems in the South Asian countries", is needed.
Cleaver K. Attitudes of emergency care staff towards young people who self-harm: a scoping review. Int Emerg Nurs. 2014.	All articles published from 2000 to 2012. British Nursing Index, CINAHL, Medline, Psychology and Behavioral Science Collection, and Psych INFO.	11 articles are included and the following findings were identified: "the studies revealed inconsistent findings, although the setting, patients' characteristics and education and training all appear to have a bearing on attitudes towards young people who self-harm."	Further research, mainly with a focus on "attitudes of emergency care practitioners within the context of emergency care work", is needed.
Han CS, et al. Qualitative research on suicide in East Asia: a scoping review. J Ment Health. 2013.	All English articles published from January 2002 to December 2011. CINAHL; MEDLINE; PsycINFO; Sociological Abstract; Web of Science; and Bibliography of Asian Studies.	11 articles are included and the following findings were identified: "Influence of cultural beliefs"; "the role of caregivers"; and "specific sociological contexts."	Further research, mainly with a focus on "comparative and longitudinal designs", is needed.
Han CS, et al. Suicide among East Asians in North America: a scoping review. J Ment Health. 2013.	All English articles published from January 2002 to December 2011. CINAHL; MEDLINE; PsycINFO; Sociological Abstract; Web of Science; and Bibliography of Asian Studies.	11 articles are included and the following findings were identified: "Rates of suicidal ideation and behavior among studied group"; "acculturation"; "family support and conflict"; and "other cultural and ethnic considerations."	Further research, mainly with a focus on "qualitative and/or mixed methods", is needed.

Discussion

The results of the current preliminary meta-review study highlight that scoping review has been entered the area of suicide research since 2013, and since then its usage has been flourishing. From eleven articles, three have been published in 2018 and three in 2017, one in 2015, two in 2014, and two in 2013.

The topics of four scoping review papers included the epidemiology of suicidal behavior in Low and Middle-Income Countries (LMICS) and regions such as Pakistan [17], Nepal [18], South Asia [22], and East Asia [23]. Furthermore, one scoping review was carried out on the indigenous communities [15] and one on the East Asians in North America [25]. In these countries and circumstances, where lack of high-quality data is evident, performing scoping reviews are ideal. Especially, when a combination of rather high-quality published papers plus grey literature are being synthesized together.

The topics of five remaining scoping review papers also included: "Ethical challenges faced by healthcare professionals who care for suicidal patients" [16], "the burden of suicidal ideation among persons with type II

diabetes" [19], "community pharmacists and patients at risk of suicide" [20], "men and suicide prevention" [21], and "attitudes of emergency care staff towards young people who self-harm" [24].

Most articles have been published in mental health and psychiatry journals. However, Journal of Mental Health and BMC Psychiatry are in the top with publishing three and two articles, respectively.

From 11 articles, 7 have explicitly mentioned that they have only retrieved English language articles. This is not a surprise as it seems that the language of science has become English since 1900 [26]. Furthermore, different search engines and databases are more likely to index English language journals [27]. These explain that why even scientists from non-English language countries, despite all disadvantages, try to publish their findings in English [28].

PubMed is the unique search engine that has been searched in all articles. PsycINFO and CINAHL were the second and the third most applied search engines in 9 and 7 articles, respectively. Again this is not a surprise as PubMed provides its users with access to over 15 million MEDLINE citations [29]. It also provides a robust and up-to-date clinical query [30] and is always

considered to be the best search engine in the biomedical electronic research [31].

The range of retrieved articles in each study varied between 10 up to 114 with the mode of 11 articles.

The authors of all retrieved articles have proposed carrying out more research in the area of their investigation. At the same time, the authors of all retrieved articles have also purposed more robust analytical research designs, especially within the countries and circumstances that suicidal behavior is under-reported and under-researched.

Limitations of the present study and designing a further comprehensive study

It should be noted that in the present preliminary meta-review, we only searched PubMed search engine. As we have mentioned earlier PubMed is always considered to be the best search engine in the biomedical research [31]. However, by looking at the other search engines it would be possible that more scoping review papers in the area of suicide research be retrieved. That could be a topic for further investigation. As a matter of fact, we are currently working on a further comprehensive international study in which more biomedical databases are searched.

We would like also to suggest that our study will be carried out at a specific time interval, e.g. every three to five years to closely monitor the trend of scoping review studies within suicide research. Although the methodologies applied by the 11 retrieved papers have some similarities, there are also large variations between these studies. Therefore, it would be wise to figure out a rather standard and comprehensive methodology for scoping review studies in the area of suicide research and to encourage its usage especially in LMICS. Again, we are working on all these issues on our further comprehensive international study.

Conclusion

Given the suitability and flourishing use of scoping review in the area of suicide research, it would be wise to figure out a rather robust and comprehensive methodology for such studies and to encourage its usage especially in LMICS.

Conflicts of interest

The author has declared no conflict of interest for this study.

References

- [1] Arksey H, O' Malley L. Scoping studies: towards a methodological framework. *International Journal of Social Research Methodology: Theory & Practice* 2005; 8: 5.
- [2] Arksey H, O 'Malley L. Scoping studies: Towards a Methodological Framework. *Int J Soc Res Methodol* 2005; 8 (1): 19– 32.
- [3] Khangura S, Konnyu K, Cushman R, Grimshaw J, Moher D. Evidence summaries: the evolution of a rapid review approach. *Syst Rev* 2012; 1: 10.
- [4] Tricco AC, Lillie E, Zarin W, O'Brien K, Colquhoun H, Kastner M, et al. A scoping review on the conduct and reporting of scoping reviews. *BMC Med Res Methodol* 2016; 16: 15.
- [5] Murphy AL, Curran J, Newton AS, Emberly D, McRae C, MacPhee S. A Scoping Review of Emergency Department Discharge Instructions for Children and Adolescents With Mental Disorders. *PediatrEmerg Care* 2017 Jul 3. doi: 10.1097/PEC.0000000000001037. [Epub ahead of print]
- [6] Seaton CL, Bottorff JL, Jones-Bricker M, Olliffe JL, DeLeenheer D, Medhurst K. Men's Mental Health Promotion Interventions: A Scoping Review. *Am J Mens Health* 2017 Nov; 11 (6): 1823-1837.
- [7] Patel K, Kouvonen A, Close C, Väänänen A, O'Reilly D, Donnelly M. What do register-based studies tell us about

- migrant mental health? A scoping review. *Syst Rev* 2017 Apr 11; 6 (1): 78.
- [8] Nelson SE, Wilson K. The mental health of Indigenous peoples in Canada: A critical review of research. *SocSci Med* 2017 Mar; 176: 93-112.
- [9] Roy P, Tremblay G, Olliffe JL, Jbilou J, Robertson S. Male farmers with mental health disorders: a scoping review. *Aust J Rural Health* 2013 Feb; 21 (1): 3-7.
- [10] Oczkowski SJW, Ball I, Saleh C, Kalles G, Chkaroubo A, Kekewich M, et al. The provision of medical assistance in dying: protocol for a scoping review. *BMJ Open* 2017 Aug 11; 7 (8): e017888. doi: 10.1136/bmjopen-2017-017888.
- [11] Boivin A, Marcoux I, Garnon G, Lehoux P, Mays N, Prémont MC, Chao YS, van Leeuwen E, Pineault R. Comparing end-of-life practices in different policy contexts: a scoping review. *J Health Serv Res Policy* 2015 Apr; 20 (2): 115-23.
- [12] Manning JC, Walker GM, Carter T, Aubeeluck A, Witchell M, Coad J; CYP-MH SAT study group. Children and Young People-Mental Health Safety Assessment Tool (CYP-MH SAT) study: Protocol for the development and psychometric evaluation of an assessment tool to identify immediate risk of self-harm and suicide in children and young people (10-19 years) in acute pediatric hospital settings. *BMJ Open* 2018 Apr 12; 8 (4): e020964.
- [13] Bem D, Connor C, Palmer C, Channa S, Birchwood M. Frequency and preventative interventions for non-suicidal self-injury and suicidal behavior in primary school-age children: a scoping review protocol. *BMJ Open* 2017 Jul 10; 7 (7): e017291.
- [14] Redvers J, Bjerregaard P, Eriksen H, Fanian S, Healey G, Hiratsuka V, et al. A scoping review of Indigenous suicide prevention in circumpolar regions. *Int J Circumpolar Health* 2015 Jan; 74 (1): 27509. doi: 10.3402/ijch.v74.27509.
- [15] Redvers J, Bjerregaard P, Eriksen H, Fanian S, Healey G, Hiratsuka V, et al. A scoping review of Indigenous suicide prevention in circumpolar regions. *Int J Circumpolar Health* 2015 Mar 4; 74: 27509. doi: 10.3402/ijch.v74.27509.
- [16] Saigle V, Racine E. Ethical challenges faced by healthcare professionals who care for suicidal patients: a scoping review. *MonashBioeth Rev.* 2018 Apr 17. doi: 10.1007/s40592-018-0076-z. [Epub ahead of print]
- [17] Shekhani SS, Perveen S, Hashmi DE, Akbar K, Bachani S, Khan MM. Suicide and deliberate self-harm in Pakistan: a scoping review. *BMC Psychiatry* 2018 Feb 12; 18 (1): 44.
- [18] Thapaliya S, Sharma P, Upadhyaya K. Suicide and self harm in Nepal: A scoping review. *Asian J Psychiatr* 2018 Feb; 32: 20-26.
- [19] Tabb KM, Perez-Flores N, Wang Y, Huang H. The burden of suicidal ideation among persons with type II diabetes: A scoping review. *J Psychosom Res.* 2017 Dec; 103: 113-118.
- [20] Murphy AL, Hillier K, Ataya R, Thabet P, Whelan AM, O'Reilly C, et al. A scoping review of community pharmacists and patients at risk of suicide. *Can Pharm J (Ott)* 2017 Oct 5; 150 (6): 366-379.
- [21] Struszczyk S, Galdas PM, Tiffin PA. Men and suicide prevention: a scoping review. *J Ment Health* 2017 Sep 5; 1-9. doi: 10.1080/09638237.2017.1370638. [Epub ahead of print]
- [22] Jordans MJ, Kaufman A, Brenman NF, Adhikari RP, Luitel NP, Tol WA, Komproe I. Suicide in South Asia: a scoping review. *BMC Psychiatry* 2014 Dec 24; 14: 358.
- [23] Han CS, Ogrodniczuk JS, Olliffe JL. Qualitative research on suicide in East Asia: a scoping review. *J Ment Health* 2013 Aug; 22 (4): 372-83.
- [24] Cleaver K. Attitudes of emergency care staff towards young people who self-harm: a scoping review. *IntEmergNurs* 2014 Jan; 22 (1): 52-61.

- [25] Han CS, Oliffe JL, Ogradniczuk JS. Suicide among East Asians in North America: a scoping review. *J Ment Health* 2013 Aug; 22 (4): 361-71.
- [26] Monge-Nájera J, Nielsen V. The countries and languages that dominate biological research at the beginning of the 21st century. *Rev Biol Trop* 2005; 53: 283-294.
- [27] Mongeon P, Paul-Hus A. The journal coverage of Web of Science and Scopus: a comparative analysis. *Scientometrics* 2016; 106: 213-228.
- [28] Rezaeian, M. Disadvantages of publishing biomedical research articles in English for non-native speakers of English. *Epidemiol Health* 2015; 37: e2015021.
- [29] Higgins MF, Macken AP, Cullen W, Saunders J, Dunne C, O'Gorman CS. What's the difference between PubMed and MEDLINE? And how do you best search MEDLINE anyway? *Ir Med J* 2013 Feb; 106 (2 Suppl): 2-4.
- [30] Wilczynski NL, McKibbin KA, Walter SD, Garg AX, Haynes RB. MEDLINE clinical queries are robust when searching in recent publishing years. *J Am Med Inform Assoc*; 2013; 20 (2): 363-8.
- [31] Falagas ME, Pitsouni EI, Malietzis GA, Pappas G. Comparison of PubMed, Scopus, Web of Science, and Google Scholar: strengths and weaknesses. *FASEB J* 2008; 22 (2): 338-42.