Writeshop: Capacity-building in Technical Writing for Mental Health Research Proposal Development

Module 2: Synthesizing and writing the literature review

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24 Nov 2020

Intended learning outcomes

Session outcome

 At the end of this session, participants should be able to critique and propose ways to improve the literature review for their current MH proposal.

Contribution of session to writeshop

 At the end of the writeshop, participants will be able to formulate a quality literature review (or update/improve an existing one) for their own MH grant proposal.

Agenda

1. Back to basics: LR in research

- Definition/description or LR
- Purpose of LR in the research process
- LR in academic research vs grant proposals

- 2. Approaches to LR and evidence synthesis
- Current and emerging evidence synthesis approaches
- General procedures
- Worked examples

- 3. General pointers in preparing the LR
- Guidelines and heuristics
- Good practices from own work
- Pitfalls

1. Back to basics: LR in research

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<u>1. Back to basics: LR in research</u> The literature review

What is LR?

• "The comprehensive study and interpretation of literature that addresses a specific question."

Aveyard, 2007

 "[...] a summary of the outcomes, and critical appraisal of a number of research studies on a defined topic [...]"

What it is not

- NOT an annotated bibliography
- NOT a selection of studies that support views or opinions
- NOT a series of critiques or descriptions of studies

Coughlan & Cronin, 2017; Hart, 2018

Coughlan & Cronin, 2017

<u>1. Back to basics: LR in research</u> LR in the research process

As part of larger research

- Identify knowledge gap (i.e., justify need for proposed research)
- Inform study design (i.e., develop research question, select methodological approach)

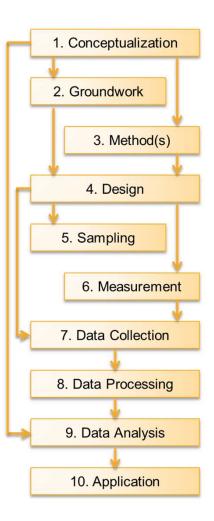
As independent research

- Support future research work (e.g., synthesis of concepts, methods, and theories on a particular topic)
- For evidence-based policy and practice (e.g., development of practice guidelines and procedures)

Aveyard, 2007; Coughlan & Cronin, 2017

The literature review (part of the conceptualization stage) is an integral step that permeates and influences most, if not all, of the components of the research process.

Diagram adopted from Shi, 2008 \rightarrow





<u>1. Back to basics: LR in research</u> LR in academic research vs grant proposals

Similarities

Content: Demonstrate knowledge gap that warrants new research

Approach: Critical evaluation and synthesis of current literature

Differences

Focus: LR for grants are more directed to the primary RQ, and usually include only recent evidence (previous 5 to 10 years)

Length: LR for grants are shorter due to space constraints (typical range of 0.5 to 3 pages, depending on the funder guidelines)

Casad, 2003 24 Nov 2020

2. Approaches to LR

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2. Approaches to LR and evidence synthesis The MH literature landscape

Table 1. No. of papers on mental health indexed in selected databases (as of 22
Nov 2020)

Database	Search term	Start date	No. of papers
Pubmed	"mental health" [MeSH Major Topic]	1994–	23,595
CINAHL Complete	(MM "Mental Health")	1940–	22,725
PsycINFO	MJMAINSUBJECT.EXACT.EXPLO DE("Mental Health")	1895–	40,244
ACI	mental health	2001–	703
HERDIN	mental health		273
Google Scholar	mental health		3,570,000

Table 2. No. of papers retrieved and analyzed in selected evidence synthesis
articles in mental health

Deferrer	Tonia	No. of papers		
Reference	Торіс	Retrieved	Analyzed	
Read & Doku, 2012	Mental health research in Ghana (1955–2009)	98	66	
Mihailescu & Neiterman, 2019	Mental health of physicians and physicians-in-training in North America (2008–2018)	316	91	
Guthrie et al, 2017	Mental health and well-being of academic researchers in UK, North America, Europe, and Australasia (2007–2017)	6,013	48	
Mansfield et al, 2020	Conceptualisation and measurement of mental health literacy in adolescent research (1997–2017)	206	91	

 $\frac{2. \text{ Approaches to LR and evidence synthesis}}{\text{Methods for LR (1/2)}}$

Systematic review and meta-analysis

 Detailed and comprehensive search for relevant literature (typically developed a priori) to reduce bias by "identifying, appraising, and synthesizing all relevant studies on a particular topic". This may be followed by statistical synthesis of data rom several studies into a single quantitative estimate or summary effect size (i.e., meta-analysis)

Ahn & Kang, 2018; Uman, 2011

Overview of reviews

 "Explicit and systematic search for and identification of multiple systematic reviews on related research questions in the same topic area for the purpose of extracting and analysing their results across important outcomes"

Pollock et al, 2020

2. Approaches to LR and evidence synthesis

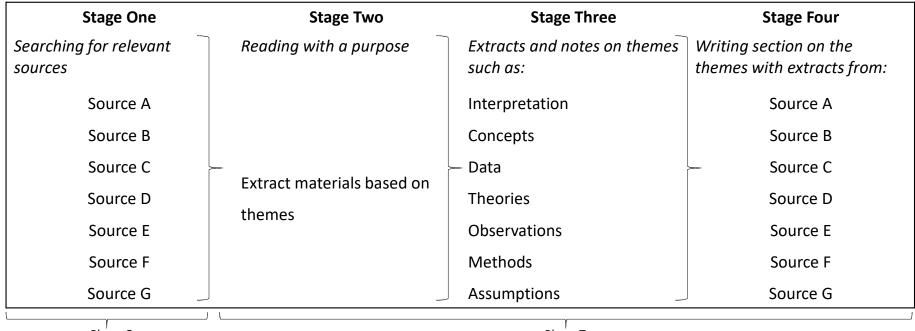
Methods for LR (2/2)

Meta-narrative	Critical Interpretive Synthesis	Meta-study	Meta- ethnography	Grounded theory	Thematic synthesis	Textual narrative synthesis	Framework synthesis	Ecological triangulation
				EPISTEMOLOGY				
Subjective idealism	Subjective idealism	Subjective idealism	Objective idealism	Objective idealism	Critical realism	Critical realism	Critical realism	Scientific realism
			APPROAC	CH TO QUALITY ASS	ESSMENT			
All relevant studies included; only non- qualitative research excluded	Quality of research judged as the extent to which it informs theory	Quality assessment only discussed in terms of 'a personal reaction note' being made on each study about the context, quality and usefulness of each study	Noblit and Hare don't discuss quality assessment; a later meta- ethnography used an amended version of CASP but only referred to studies being excluded on the basis of lack of relevance or because they weren't qualitative	Studies evaluated for validity and robustness of methods; sample size and power; validity of conclusions	Seven quality criteria common to sets of criteria proposed by four research groups for qualitative research plus three additional criteria relating to whether studies used appropriate methods for helping people express their views	Ten criteria used: two on quality and reporting of sampling methods, four to the quality of the description of the sample in the study, two to the reliability and validity of the tools used to collect data and one on whether studies used appropriate methods for helping people to express their views	12 criteria used: five related to reporting aims, context, rationale, methods and findings; four relability and validity; three relating to the appropriateness of methods for ensuring that findings were rooted in participants' own perspectives	Adapts the Design and Implementation Assessment Device (DIAD) Version0.3 (a quality assessment tool for quantitative research). Excludes 'poor quality' studies

Barnett-Page & Thomas, 2009

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2. Approaches to LR and evidence synthesis General procedure in producing LR (1/2)



Phase One: Search for literature Phase Two: Review of the literature

Hart, 2018

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2. Approaches to LR and evidence synthesis General procedure in producing LR (2/2)

Stage One	Stage Two	Stage Three	Stage Four
Identification of the aim and purpose of the review	Familiarization with the literature	Extracting information based on thematic areas	Synthesizing information from different studies
Planning an organized search for literature (e.g., sources, search strategy)	Reading and identifying themes/thematic areas	Analyzing included literature (i.e., critical appraisal)	Writing the review
Selecting relevant studies based on predefined criteria			

Coughlan & Cronin, 2017 24 Nov 2020

Worked examples

2. Approaches to LR and evidence synthesis

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Narrative review (1/2)

Background:	 Stigmatizing attitudes towards people with mental illnesses still remain in our society advancements made in psychiatric research that has allowed us to understand the science behind many mental illnesses.
Aim:	 To describe the perception of people on mental illness as influenced by stigma To identify the implications of stigma on people with mental illness, the general public, and on public health To enumerate possible interventions and strategies that may address the issue
Approach:	 Selective search of literature that addresses the topic of the paper Conceptual discussion of the paper content in relation to the aims of the review
Sources:	16 peer-reviewed papers and 4 white papers

Rivera AB, Antonio CT. Mental health stigma among Filipinos: Time for a paradigm shift. Phil J Health Res Dev. 2017;21(2):20–24.

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Narrative review (2/2)

Results:

Mental health stigma among Filipinos	Implications of stigma	Interventions addressing stigma
Private stigma as mediator of the relationship between public stigma and attitudes of seeking professional help	Public stigma presents as danger to social opportunities (i.e., employment, socialization, relationships)	Education of the wider public and selected targeted groups informed by research evidence
Derogatory terms referencing mental illness as insults to others (e.g., politicians)	Reinforcement of negative perceptions towards people with mental illness (i.e., involvement with crimes, violence) Self-stigma leading to lowered self esteem	Respectful and informed representation in media and the arts
	Barrier to access to treatment and preventive services	

Rivera AB, Antonio CT. Mental health stigma among Filipinos: Time for a paradigm shift. Phil J Health Res Dev. 2017;21(2):20–24.

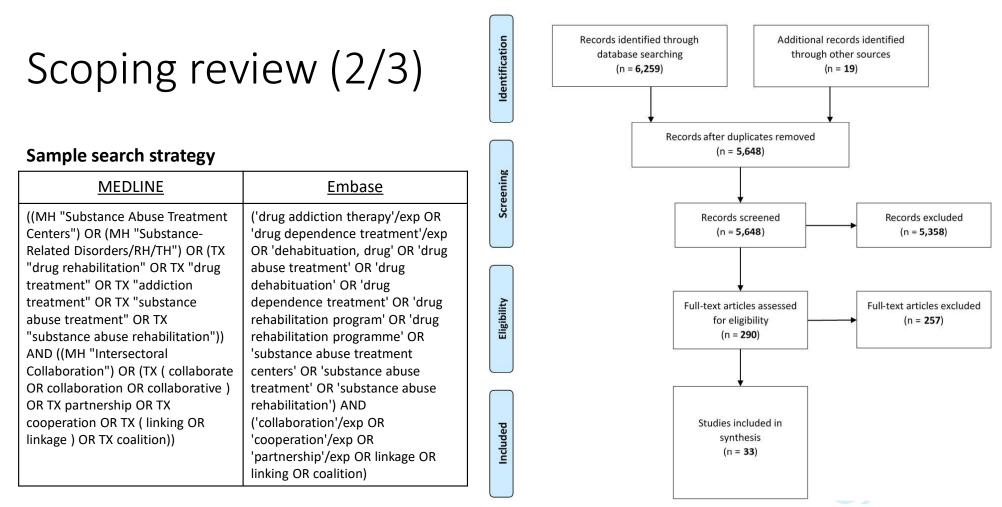
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Scoping review (1/3)

Background:	Lack of consensus on the nomenclature and definition of collaboration remains an unresolved issue in public health policy and practice			
Aim:		To summarize and synthesize the definition, conceptualization, and theorization on collaboration in the context of drug rehabilitation		
Approach:	MethodScoping review method by Arksey and O'Malley (2005) and Levac, Colquhoun, O'Brien (2010), and in compliance with the Preferred Reporting Items for Syste Reviews and Meta-Analyses extension for scoping reviews (PRISMA-ScR) (Tricce 2018)			
	Sources MEDLINE, CINAHL Complete, Embase, and PsychINFO + citations searching			
	Charting	(a) the term used to refer to collaboration; (b) precise definition provided for the term; (c) underlying theoretical approach; and (d) for empirical papers, operational definition of collaboration.		
	Analysis	Analysis Reporting of level of intensity for each data charting element		

Antonio CT, Li CMJ. Definition and conceptualization of collaboration in drug rehabilitation: Systematic synthesis and comparison using a scoping review approach. Manuscript in preparation.

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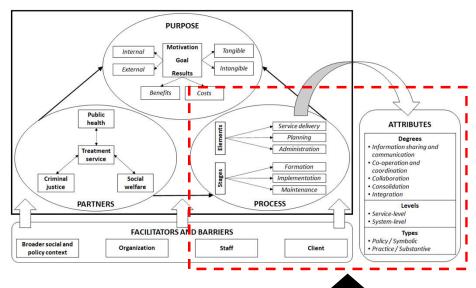
Antonio CT, Li CMJ. Definition and conceptualization of collaboration in drug rehabilitation: Systematic synthesis and comparison using a scoping review approach. Manuscript in preparation.

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Scoping review (3/3)

Theories on collaboration (n = 12)

Rationale for collaboration	Process of collaboration
 Resource-based: organizations work together to address resource constraints Institutional theory: organizations work together because of external system pressure Rational choice: organizations serving a common client or aiming for common end Mutual dependence: interdependence of organizations 	 Diffusion of innovation: adoption of collaboration initiatives in human services as through a process of innovation diffusion Stages of change: successful change process requires different strategies for different stages/phases



Conceptualization of collaboration

Category	Definition	n
Degrees	Level of intensity and formality	9
Elements	Constitutive activities	8
Stages	Evolution over time	5
Levels	Focus on either services or system	4
Туре	Policy or practice collaboration	1

Antonio CT, Li CMJ. Definition and conceptualization of collaboration in drug rehabilitation: Systematic synthesis and comparison using a scoping review approach. Manuscript in preparation.

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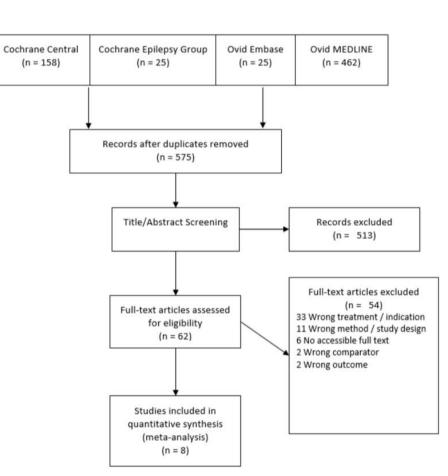
Systematic review and meta-analysis (1/3)

	Analysis				
CriteriaRCTs of Levetiracetam reporting the following outcomes: time to withdu allocated treatment, time to six-month seizure remission, quality of life, function, and adverse events					
	Sources Ovid MEDLINE, Ovid EMBASE, Cochrane Central, and Cochrane Epilepsy Group				
Approach:MethodSystematic review in accordance with the guidelines laid out in the Coch Handbook for Systematic Reviews of Interventions.					
Aim:	in the trea	To compare the effectiveness of levetiracetam with other anti-epileptic drugs as monotherapy in the treatment of partial onset seizures with or without secondary generalization in patients from 16 years of age with newly diagnosed epilepsy.			
Background:	Currently,	Levetiracetam is one of the newer second-line anti-epileptic drugs available in the market. Currently, it is not included in the Philippine National Formulary, and the Committee wanted to know its effectiveness compared to other drugs in treating epilepsy.			

Antonio CT, Cochon KL, Rocha-Tulagan II, Amit AL, Torres CH. Levetiracetam versus other anti-epileptic drugs for treating partial onset seizures with or without secondary generalization in patients 16 years of age and older with newly diagnosed epilepsy: A systematic review and meta-analysis. Final Technical Report. Quezon City: Pharmaceutical Division, Department of Health; 2018. 81 p. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review 2

SR/MA (2/3)

#	OVID MEDLINE 4/24/2018 (3PM)						
	Searches	Results					
	levetiracetam.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	3072					
2	elepsia.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	0					
	elepsia xr.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	0					
ļ	keppra.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	131					
5	keppra xr.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	3					
6	levetiracetam in sodium chloride.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	0					
7	Lo 59.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	2					
3	Lo59.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	5					
9	Matever.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	1					
0	Spritam.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	4					
11	"Ucb I 059".mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	0					



Antonio CT, Cochon KL, Rocha-Tulagan II, Amit AL, Torres CH. Levetiracetam versus other anti-epileptic drugs for treating partial onset seizures with or without secondary generalization in patients 16 years of age and older with newly diagnosed epilepsy: A systematic review and meta-analysis. Final Technical Report. Quezon City: Pharmaceutical Division, Department of Health; 2018. 81 p.

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Systematic review and meta-analysis (3/3)

	Levetiracetam			Other AEDs				Mean Difference	Mean Difference
Study or Subgroup	Mean SD Total		Mean SD		Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI	
Kraemer 2009 (CBZ)	67.2	21.76	45	65	20.65	90	17.4%	2.20 [-5.46, 9.86]	
Kraemer 2009 (LTG)	67.2	21.76	45	67.1	20.96	89	17.2%	0.10 [-7.61, 7.81]	
Suresh 2015 (CBZ)	64.58	2.02	28	58.41	1.89	28	65.4%	6.17 [5.15, 7.19]	-
Total (95% CI)			118			207	100.0%	4.44 [0.75, 8.13]	◆
Heterogeneity: Tau ² = 5.14; Chi ² = 3.30, df = 2 (P = 0.19); I ² = 39%									-20 -10 0 10 20
Test for overall effect: Z = 2.36 (P = 0.02)								Favours [Other AEDs] Favours [Levetiracetar	

	Level	tiracet	am	Oth	er AED)s		Mean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total	Weight	IV, Random, 95% CI	IV, Random, 95% CI
Kraemer 2009 (CBZ)	26	7.22	42	26	7.05	84	49.4%	0.00 [-2.65, 2.65]	-+-
Kraemer 2009 (LTG)	26	7.22	42	25.4	6.82	85	50.6%	0.60 [-2.02, 3.22]	+
Total (95% CI)			84			169	100.0%	0.30 [-1.56, 2.17]	+
Heterogeneity: Tau ² = 0	0.00; Chi	² = 0.10), df = 1	(P = 0.	75); 12	= 0%			-20 -10 0 10 20
Test for overall effect: Z	= 0.32 (P = 0.7	5)						Favours [Other AEDs] Favours [Levetiracetan

Levetiracetam had a positive significant association with optimal quality of life (as measured by QOLIE-31 and QOLIE-10) (MD: 4.44; 95% CI: 0.75, 8.13).

Levetiracetam was found to be associated with poor cognitive function (MD: 0.30; 95% CI: -1.56, 2.17), although this was also not statistically significant.

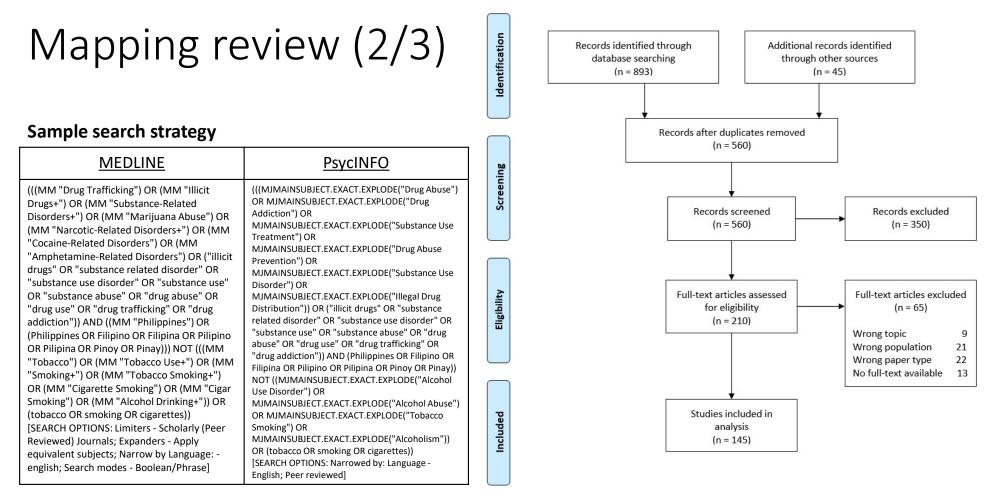
Antonio CT, Cochon KL, Rocha-Tulagan II, Amit AL, Torres CH. Levetiracetam versus other anti-epileptic drugs for treating partial onset seizures with or without secondary generalization in patients 16 years of age and older with newly diagnosed epilepsy: A systematic review and meta-analysis. Final Technical Report. Quezon City: Pharmaceutical Division, Department of Health; 2018. 81 p. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review

Mapping review (1/3)

Background:	policies ar	There is increasing interest in illicit drug research in the Philippines to inform government policies and programs. All prior research have not been synthesized, hence, there is no clear indication of extant evidence and knowledge gaps.					
Aim:	To describe the current landscape of research on the topic of illicit drugs conducted in the Philippines and/or among the Filipino population.						
Approach:	Method Mapping review (Clapton et al, 2009; Miake-Lye et al 2016; Soaita et al, 2019)						
	Sources	Five international (MEDLINE via EBSCOhost, CINAHL Complete via EbscoHost, PsycINFO via ProQuest, Scopus, and Web of Science) one regional (ASEAN Citation Index), and one local database (HERDIN Plus) + citations searching					
	Criteria	Peer-reviewed empirical or conceptual papers on illicit drugs in the Philippine setting or among Filipinos residing in the Philippines					
	Counts and proportions of papers for: a) characteristics of included papers (i.e., country of origin, journal type, authorship type, paper type); b) time trend of annual and cumulative number of publications; and c) distribution of papers according to research area and theme						

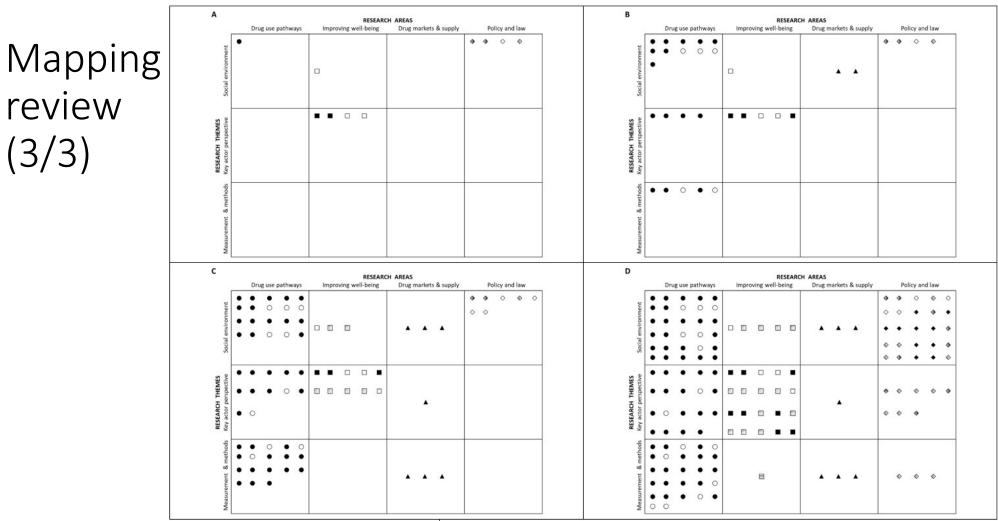
Antonio CT, Torres CH, Liao SS, Torres AH, Saguros SA. Illicit drug research in the Philippines: A systematic mapping review. 2020. Manuscript in preparation.

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Antonio CT, Torres CH, Liao SS, Torres AH, Saguros SA. Illicit drug research in the Philippines: A systematic mapping review. 2020. Manuscript in preparation.

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Changes in the distribution of illicit drug research by research and theme over time (A: 1968–91, B: 1968–2001, C: 1968–2015, D: 1968–2020).

Antonio CT, Torres CH, Liao SS, Torres AH, Saguros SA. Illicit drug research in the Philippines: A systematic mapping review. 2020. Manuscript in preparation.

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Policy (document) review (1/3)

Background:	Previous literature has offered a broad critique or description on the drug policy in the Philippines in general, but none has focused on the drug treatment and rehabilitation policy.						
Aim:	To review and discuss the prevailing policy and program on drug treatment and rehabilitation in the Philippines.						
Approach:	MethodReview of the content of formal policy documents						
	Sources	Electronic and archival search of statues, executive orders, administrative issuances, and jurisprudence + Consultation with senior government official involved with the drug program					
	Analysis Mapping of policy content vis-à-vis the UNODC domains of drug treatment and rehabilitation						
Sources:	 181 documents retrieved 23 documents included in the analysis 						

Antonio CT, Li CMJ, Siu JYM, Guevarra JP, Leabres JM, Vista SD, Estacio LR. Treatment and rehabilitation for illicit drug users in the Philippines: a review of policy and service arrangement. Manuscript in preparation.

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Policy (document) review (2/3)

Policy documents included in the review (n = 23)

Statute and Executive Orders (n = 4)

e.g., Republic Act No. 9165, Comprehensive Dangerous Drugs Act of 2002 (June 7, 2002); Executive Order No. 66, Institutionalizing the Philippine Anti-Illegal Drug Strategy (October 29, 2018)

Administrative issuances and regulations (n = 15)

e.g., Implementing Rules and Regulations of Republic Act No. 9165, Otherwise Known as the "Comprehensive Dangerous Drugs Act of 2002" (November 7, 2002); DDB Board Regulation No. 7, Consolidated Revised Rules Governing Access to Treatment and Rehabilitation Programs and Services (October 29, 2019)

Jurisprudence (n = 1)

Supreme Court En Banc Resolution G.R. No. 226679, Estipona vs. Hon. Frank E. Lobrigo (August 15, 2017) declaring unconstitutional Section 23 of Republic Act No. 9165, which provides that "Any person charged under any provision of this Act regardless of the imposable penalty shall not be allowed to avail of the provision on plea-bargaining"

Guidelines and Manuals (n = 3)

e.g., DOH Manual of Operations for the Accreditation of Drug Abuse Treatment and Rehabilitation Centers (2018)

Antonio CT, Li CMJ, Siu JYM, Guevarra JP, Leabres JM, Vista SD, Estacio LR. Treatment and rehabilitation for illicit drug users in the Philippines: a review of policy and service arrangement. Manuscript in preparation.

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Policy (document) review (3/3)

Results:	• The current policy appears to have been influenced by the broader turn in drug control policy that emphasizes rehabilitation and recovery (c. 1970)
	 Local policy accounts for the majority of tasks articulated in the three domains of drug treatment and rehabilitation by the UNODC
	 Most well-articulated and explicated dimensions: (a) service standards and accreditation, (b) professional standards, and (c) treatment process and monitoring.
	 Written aspects of the provisions with regards to the rights and duties of treatment participants are relatively general in scope.
	 Implementation of the policy occurs at the local level, but local governments appear to have very minimal and token role in treatment and rehabilitation.

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[Non-MH] Rapid review (1/2)

Background:	region but	ASEAN plans to develop and harmonize action on AMR across the relevant sectors in the ASEAN region but needs to have a definitive idea as to the content of existing national plans from AMS to inform the drafting of the roadmap and plan of action					
Aim		To identify the similarities and differences in the goals, objectives, strategies and tactics of national action plans to combat antimicrobial resistance in the ASEAN region.					
Approach:	Method	<i>Method</i> Focused review of published or publicly available national action plan to combat antimicrobial resistance of each member state (N = 10).					
	Analysis	Analysis Qualitative content analysis using theme-based coding to compare content of national action plan with provisions of the Global action plan on antimicrobial resistance (WHO, 2015). Claims verification through multiple levels of review, vetting, and feedbacking (i.e., country-level, ASEAN-level)					
Sources:		• NAP of 8/10					

Antonio CT, Roxas EA, Bermudez AC, Villanueva SM, Reyes ML, Silang AC. Rapid review of national action plans to combat antimicrobial resistance in the ASEAN region. Paper presented at: 15th UP Manila Science and Technology Week; 27-30 Nov 2019; Manila, Philippines. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review

[Non-MH] Rapid review (2/2)

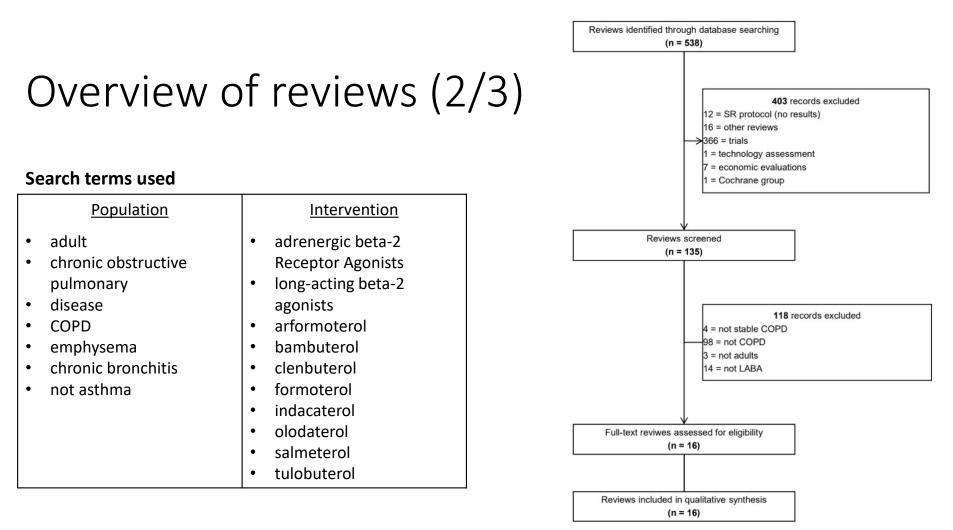
Components/Strategies (Global Action Plan)	Α	в	с	D	Е	F	G	н	I	J
1. Governance and oversig	ht									
1.1. Situational Analysis										
1.2. Multisectoral Coordinating Group w/ Secretariat	data			data						
1.3. Technical Working Groups (TWGs)	Do O			Do O						
1.4. Associated Laws or Mandates for AMR in NAPs										
2. Strategies										
2.1. Harmonization of Surveillance Systems										
2.2. Infection Prevention & Control (IPC) & Antimicrobial Stewardship										
2.3. Research & Technology Development										
2.4. Public Communication Program	ata			a						
2.5. Pre-service Education & Training on AMR	σ			o data						
2.6. Decision-making Support for Policy Makers	<mark>0</mark>			2						
2.7. Collaborative Research in AMR	1									
2.8. Intersectoral Collaboration]						
2.9. Finance & Resource Generation										

Antonio CT, Roxas EA, Bermudez AC, Villanueva SM, Reyes ML, Silang AC. Rapid review of national action plans to combat antimicrobial resistance in the ASEAN region. Paper presented at: 15th UP Manila Science and Technology Week; 27-30 Nov 2019; Manila, Philippines. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review

[Non-MH] Overview of reviews (1/3)

Background:	mainstay of because o	Long-acting beta2 agonists (LABA), either singly or in combination with corticosteroids, are the mainstay of treatment for stable chronic obstructive pulmonary disease (COPD), primarily because of their direct action in producing bronchodilation. In the Philippines, only salmeterol and formoterol are listed in the Philippine National Formulary to date.						
Aim:		To provide a comprehensive synthesis of evidence from systematic reviews on the efficacy and safety of long-acting beta agonists (LABA) to treat stable COPD among adults age more than 18 years.						
Approach:	Method	Overview of reviews (i.e., synthesis of evidence from individual SRs)						
	Sources	Cochrane Database of Systematic Reviews						
Criteria Systematic reviews of LABA, whether used singly or in combination w drug, in adult (>18 years old) patients with stable COPD								
	Analysis	Extraction of data on point estimates and pooled analyses reported in SRs						

Antonio CT, Cochon KL (College of Public Health, University of the Philippines Manila, Manila, Philippines). Efficacy and safety of long-acting beta-agonists for chronic obstructive pulmonary disease: An overview of reviews. Final Technical Report. 06 Oct 2017. Quezon City: Pharmaceutical Division, Department of Health; 2017. 74 p. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review 31



Antonio CT, Cochon KL (College of Public Health, University of the Philippines Manila, Manila, Philippines). Efficacy and safety of long-acting beta-agonists for chronic obstructive pulmonary disease: An overview of reviews. Final Technical Report. 06 Oct 2017. Quezon City: Pharmaceutical Division, Department of Health; 2017. 74 p. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review

[Non-MH] Overview of reviews (2/2)

Results: The 16 systematic reviews included a total of 232 individual studies and 127,172 patients. All 16 included records had high quality (i.e., aggregate score of between 7 and 11), as assessed using AMSTAR. Indacaterol, a long-acting beta2 agonist administered once daily, has presented moderate to high evidences of being an effective medication for the treatment of patients with COPD, resulting in both improved lung function and quality of life comparable with the outcomes observed in salmeterol and formoterol. Further studies should be conducted to confirm and assess the safety and efficacy of indacaterol, along with other ultra-LABAs like olodaterol and vilanterol, as a suitable substitute for salmeterol and formoterol because of the advantages presented by its oncedaily dosing regimen.

Review	Included Studies	Participants	Duration of Study			
Kew 2014a	30	15,266	6 to 18 weeks			
Farne 2015	10	10,894	At least 12 weeks			
Nannini 2013a	15	7,814	At least 4 weeks			
Kew 2014b	43	21,247	At least 12 weeks			
Ni 2014	12	9,547	4 to 52 weeks			
Nannini 2013b	19	10,400	4 to 156 weeks			
Kew 2013	26	14,393	3 months to 3 years			
Rojas-Reyes 2016	6	1,902	At least 12 weeks			
Welsch 2013	3	1,528	12 weeks			
De Colster 2013	3	768	52 weeks to 2 years			
Nannini 2012	14	11,794	12 to 52 weeks			
Geake 2015	13	9,961	12 to 52 weeks			
Appleton 2006a	7	2,652	At least 4 weeks			
Karner 2011	1	293	At least 12 weeks			
Appleton 2006b	23	6,061	At least 4 weeks			
Barr 2005	7	2,652	4 to 52 weeks			

Antonio CT, Cochon KL (College of Public Health, University of the Philippines Manila, Manila, Philippines). Efficacy and safety of long-acting beta-agonists for chronic obstructive pulmonary disease: An overview of reviews. Final Technical Report. 06 Oct 2017. Quezon City: Pharmaceutical Division, Department of Health; 2017. 74 p. 24 Nov 2020 CT Antonio || Synthesizing and writing the literature review 33

3. General pointers for LRs

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<u>3. General pointers for LRs</u> Some prior evidence synthesis activities

Peer-reviewed evidence synthesis papers	Peer-reviewed evidence synthesis methods papers	Evidence synthesis projects (unpublished)
 Reñosa MDC, Palola TK, Antonio CT. Enablers and deterrents on the school-based condom availability and distribution: a scoping review. J Global Health Reports. 2020;4:e2020026. doi:10.29392/001c.12676. Antonio CT, Guevarra JP, Medina PN, Avelino MD, Agbon AG, Sepe DC, Bardelosa DD, Cengca MM, Ting ML, Lara AB. Components of compulsory service program for health professionals in low-and middle-income countries: A scoping review. Perspect Public Health. 2020;140(1):54–61. doi: 10.1177/1757913919839432. Reyes ML, Torres CH, Bermudez AC, Cochon KL, Roxas EA, Liao SP, Ortega DN, Silang AC, Uezono DR, Salamat MS, Antonio CT. Intersectoral collaborations for the prevention and control of vector borne diseases: a scoping review. Acta Med Philipp. 2019;53(4):315–326. Medina PN, Bardelosa DD, Lara AB, Avelino MD, Agbon AG, Cengca RM, Sepe DC, Ting ML, Guevarra JP, Antonio CT. A historical perspective of mandatory service policy in the Philippines: A document analysis. Phil J Health Res Dev. 2018;22(3):1–12. Saguil EA, Bermudez AC, Antonio CT, Cochon KL. Consensus recommendations on the prevention and management of surgical site infections (SSI) in the Philippine setting. Philipp J Surg Spec. 2017;72(2):70–84. 	 Antonio CT. Citations searching in literature reviews. Phil J Health Res Dev. 2019;23(1):71–74. Antonio CT, Amit AL, Reyes ML, Agbon AG, Torres CH, Cochon KL, Guevarra JP, Bermudez AC. Practical guidance in the conduct of a scoping review. Acta Med Philipp. Forthcoming 2021. 	 Bermudez AC, Antonio CT, Cochon KL. Development of Clinical Practice Guidelines in the Diagnosis and Management of Drug Dependence in Filipino Adults. Nov 2017–Jul 2019 Antonio CT, Bermudez AC, Cochon KL. Development of the clinical practice guidelines for the management of agitation. Apr 2017–Jul 2019. Antonio CT, Bermudez AC, Cochon KL. Creation of consensus statements for selected mental disorders for the Philippine Psychiatric Association. Jun 2016–Jan 2017.

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<u>3. General pointers for LRs</u> Searching the literature

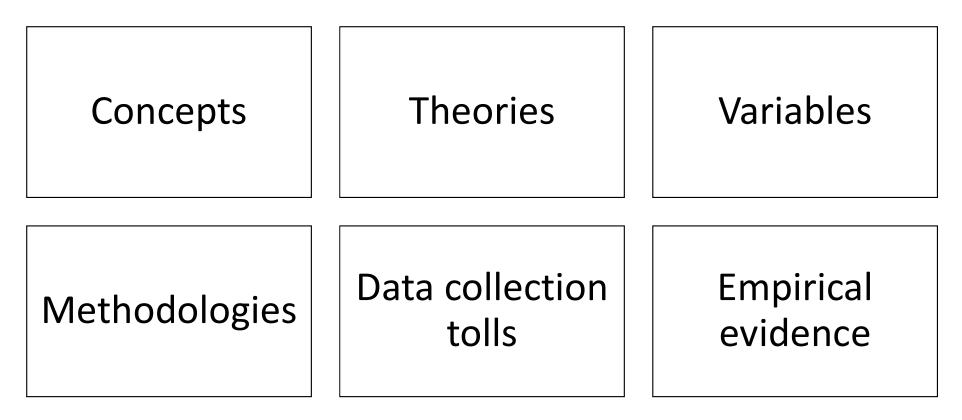
- Define the questions that will guide the search, or the themes that will be extracted from the papers
- Consult evidence synthesis papers on the topic before perusing individual empirical papers
- Search relevant databases for mental health (e.g., PsycINFO) in addition to multidisciplinary databases (e.g., MEDLINE, CINAHL Complete, Cochrane Library)

- Consider regional (e.g., ASEAN Citation Index, WPRIM) and local databases (e.g., HERDIN Plus) databases + Google Scholar
- Consult online local/institutional journals that may not be indexed in any database
- Perform citations searching

<u>3. General pointers for LRs</u> Managing references and extracting data

- Embrace automation when possible (e.g., Mendeley or EndNote for reference management; Covidence for records selection; RevMan, NVivo for data extraction)
- Pilot test data abstraction forms prior to full use (approx. 10% of the papers included for analysis)
- Synthesis is best done collaboratively

<u>3. General pointers for LRs</u> Focusing synthesis – Possible thematic areas



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Summary

1. Back to basics: LR in research

- LR is the systematic search, appraisal, synthesis, and interpretation of literature on a topic
- LR has both scientific and ethical imperatives

2. Approaches to LR and evidence synthesis

- Search is planned a priori
- Synthesis is focused on specific thematic areas related to a question / topic

- 3. General pointers in preparing the LR
- LR process should be systematized and made transparent
- Ensure adequate coverage of local literature