

Quality Indicators for Mental Health in Primary Care – A Comparison Between Literature Review Methods

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Abstract. Evidence regarding quality indicators in primary health care is a major need for better mental health management, monitoring and decision-making. In this paper, we compared two methods of retrieving quality indicators for mental health in primary care by means of an umbrella review, that included eight systematic reviews, and of grey literature. From the umbrella review, 48 primary studies that composed the 8 revisions were analyzed. A total of 94 quality indicators for mental health in primary care were found with the umbrella review, while 2000 indicators were found using the grey literature method. Sixty-eight indicators (3.2% from total) were common to both methods. Both methods can be complementary and useful in order to identify quality indicators.

Keywords. Mental health, primary care, quality indicators, knowledge management.

1. Introduction

The World Health Organization (WHO), through the Mental Health Action Plan for 2013–2020, has the strengthening of information systems, evidence and research on health and mental illness as one of its four priority objectives [1].

Several available documents aggregate, describe and present quality indicators in many areas of primary health care (PHC), such as mental health. The use of indicators is an opportunity for improvement and to achieve the goals basing the clinical practice in best available evidence, through quantitative parameters (planning, organizational, clinical) aiming at better processes and results [2,3].

The structure of quality of health care was proposed by Donabedian and Fleming, categorizing quality indicators in structure, process and outcome [3]. Importantly, for a

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process to be a valid measure of quality, it must be closely related to a result that people care about [2,4,5]. The non-indexed literature has been increasingly valued for the knowledge management improvement, including the introduction of a method for synthesizing this information in support of "classical" systematic reviews [6].

The objective of this study was to compare the obtained results between two methods of retrieving mental health quality indicators in literature, i.e. by means of a systematic (umbrella) review and the non-indexed guidelines and databases, as grey literature.

2. Methods

Based on the results of an umbrella review on PHC indicators, which followed the standards of the "PRISMA Statement" [7] (PROSPERO registration CRD42019124170) and used "AMSTAR-2" as an instrument for quality and risk of bias analysis [8], eight contexts were identified (mental health, chronic disease, women health, services assessment, dental care, orthopedics preventive medicine and infectious disease), allowing for comparisons on health services performance. In the context of mental health, eight systematic reviews with low risk of bias were included. For the present analysis, the primary studies included in these 8 systematic reviews were selected, thus creating a list of evidence-based indicators, categorized by the dimensions of care (structure, process and outcome) [3] and sub-contexts (dementia, depression, bipolar disorder and others).

In parallel, we identified other indicators used/proposed worldwide as grey literature, i.e. what is produced at all levels of government, business, universities, industry in print and electronic formats, and not controlled by scientific peer review publishers [9,10]. This non-indexed approach was carried out through exhaustive research on the internet, contact with colleagues and international organizations that have produced documents, guidelines and databases [11,12] on mental health quality indicators such as World Health Organization (WHO), Organization for Economic Co-operation and Development (OECD), Agency for Healthcare Research and Quality (AHRQ), and others. As this list was not standardized, that is, there is not a clear or complete categorization of levels of care, we were not able to perform the analysis of which indicators were directly related to primary care. Therefore, we performed a careful analysis of the primary studies selected in the systematic reviews resulting from the umbrella review. Those indicators were subsequently searched for among non-indexed setlist.

3. Results

The indexed reviews retrieved 94 indicators from the 480 primary articles, using the umbrella review method.

Using the non-indexed literature method (grey literature), we found 2000 indicators (not specific for primary care). A total of 68 indicators for mental health in primary care were found in both lists of retrieved indicators (72.3% of the indexed result). Most frequent indicators were those related to the control, monitoring and follow-up of patients during treatment, such as coordinated care, continuity of care and preventive measures like the misuse of substances in serious mentally ill patients. Other quality indicators were related to prescription, dosage and monitoring of drug treatment with

psychotropic drugs. Some indexed studies indicators, for instance extra pyramidal effects monitoring, sedation side effects, and patients with delayed diagnosis of serious mental illness, do not appear in general guidelines from the grey literature (table 1).

Table 1. Indicators by context and type of search source

Context of Care	Indexed (n, %)	In both sources (n, % of indexed)
Serious Mental Illness	48 (51.1)	39 (41.5)
Depression	26 (27.7)	19 (20.2)
Dementia	10 (10.6)	6 (6.4)
Medication Control	4 (4.3)	0 (0)
Patient Data	2 (2.1)	1 (1.1)
Other Contexts	4 (4.3)	3 (3.2)
Total	94 (100)	68 (72.3)

4. Discussion

The emergence of the context of serious mental illness comes from the concern of health providers and the scientific community about mortality in these patient groups, which have resulted from increased standardized mortality rate in the last few years [13,14].

In this paper, we verified if the indicators found in the indexed literature were also addressed in the grey literature. Our results highlight important differences in both approaches. The common indicators for the two types of research sources contribute to a more general approach, with indicators related to the coordination of care and care per se (e.g. patients enrolled in the mental health program, disease monitoring/follow up, drug control). Some important indicators related to primary care in the context of mental health were not found in the grey literature, such as extra pyramidal effects monitoring, sedation side effects, and patients with delayed diagnosis of serious mental illness. An hypothesis for these differences might be explained by the fact that governments and administrations are more concerned in evaluating the health system and its functioning than in its improvement.

As a limitation, the analysis in non-indexed source of quality indicators in primary care was not possible due to the lack of information regarding the characterization and categorization in levels of care which should be explored in future work in this area.

5. Conclusion

Evidence-based medicine improves every day its knowledge management methods and technologies, and our study shows that there is more to be improved on the topic of rigorous synthesis in the literature. Our work reveals that the indicators selected in the indexed literature are being used in a consistent but incomplete way by non-indexed guidelines and documents. There is a need for a normalization of the presentation of the indicators, including the characterization and categorization (e.g. in levels of care) for subsequent analyzes referring to what the grey literature could aggregate from the indexed literature and the primary care practices in mental health. The analysis of the composition of mental health care indicators in primary health care in both contexts should be valued and encouraged in order to decrease the lack and the loss of relevant information. The found differences emphasize the importance of using scientifically

validated indicators in the clinical practice and health services, as it is also important that the indicators routinely used in multiple services are submitted to scientific validation, namely through peer reviewed publications.

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References

- [1] World Health Organization, *Mental health action plan 2012-2020*. Geneva, 2013.
- [2] M.S. Donaldson, *Measuring the quality of health care*, National Academy Press; Washington/DC, 1999. p. 3.
- [3] A. Donabedian, The Quality of Care: How Can It Be Assessed?, *JAMA* **260**(12) (1988), 1743–1748.
- [4] N. Klazinga, K. Stronks, D. Delnoij and A. Verhoeff, Indicators without a cause. Reflections on the development and use of indicators in health care from a public health perspective, *Int J Qual Health Care* **13**(6) (2001), 433–438.
- [5] H. Wollersheim, R. Hermens, M. Hulscher, et al., Clinical indicators: development and applications, *Neth J Med* **65**(1) (2007), 15–22.
- [6] C. Pappas, I. Williams, Grey literature: its emerging importance, *J Hosp Librariansh* **11**(3) (2011), 228–234.
- [7] D. Moher, A. Liberati, J. Tetzlaff and D.G. Altman, PRISMA Group, Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement, *PLoS Med* **6**(7) (2009), e1000097.
- [8] B.J. Shea, B.C. Reeves, G. Wells, et al., AMSTAR 2: a critical appraisal tool for systematic reviews that include randomised or non-randomised studies of healthcare interventions, or both, *Bmj* **358** (2017), j4008.
- [9] S. Tillett and E. Newbold. Grey literature at the British Library: revealing a hidden resource, *Interlending & Document Supply* **34**(2) (2006), 70–73.
- [10] A. Paez, Gray literature: An important resource in systematic reviews, *Journal of Evidence-Based Medicine* **10**(3) (2017), 233–240.
- [11] Q. Mahood and D. Van Eerd, E. Irvin, Searching for grey literature for systematic reviews: challenges and benefits, *Research Synthesis Methods* **5**(3) (2013), 221–234.
- [12] R.J. Adams, P. Smart and A.S. Huff, Shades of grey: guidelines for working with the grey literature in systematic reviews for management and organizational studies, *Int J Manage Rev* **19**(4) (2017), 432–454. doi:10.1111/ijmr.12102.
- [13] P. Staudt Hansen, M. Frahm Laursen, S. Grøntved, et al., Increasing mortality gap for patients diagnosed with bipolar disorder-A nationwide study with 20 years of follow-up, *Bipolar Disorders* **00** (2018), 1-6.
- [14] L.H. Lomholt, D.V. Andersen, C. Sejrsgaard-Jacobsen, et al., Mortality rate trends in patients diagnosed with schizophrenia or bipolar disorder: a nationwide study with 20 years of follow-up, *Int J Bipolar Disord* **7**(6) (2019). doi:10.1186/s40345-018-0140-x.