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Original Article

Appraisal and Evaluation of the Latest Management/Treatment WHO Guidelines in 2020-2021 Using AGREE II Tool

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Abstract

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Background: Health guidelines are among the items submitted to the offices of different medical journals, and considering the need for checking and reviewing them before they are approved for publication in the journal, this study aimed to evaluate the latest World Health Organization (WHO) management/treatment guidelines in 2020-2021 using the AGREE II tool.

Methods: In this cross-sectional study conducted in 2022, the Appraisal of Guidelines for Research and Evaluation (AGREE) II Tool was used to assess 13 of the latest WHO management and treatment guidelines across different medical areas. AGREE II is a tool designed to assess guidelines based on six key domains: scope and purpose, stakeholder involvement, rigor of development, clarity of presentation, applicability, and editorial independence. The tool also evaluates the guideline overall and determines whether it is recommended for practice. Two appraisers assessed each guideline. One of them was a medical journalist with a good command of the English language, and the other was a general physician. Mean and standard deviations were used to analyze the gathered data. Microsoft EXCEL software (version 2016) was used to analyze the gathered data.

Results: Twelve of the assessed guidelines were assessed as having “high quality,” and one was assessed as having “average” quality. All the assessed guidelines were recommended, except five of them needed modifications in their development process.

Conclusion: The evaluations indicate that the process of guideline formulation and the quality of reporting in the assessed guidelines are sound and reliable for use in different health systems. Furthermore, the AGREE II tool will help improve the submitted guidelines in the offices of medical journals and provide a means for medical journalism students, reviewers of the submitted articles, and journal editors. The guidelines have been evaluated for their quality and impact on healthcare practice and policy based on the information provided. The high-quality ratings of the guidelines suggest that they can positively influence healthcare practice and policy. Furthermore, these guidelines can also influence future research and development in related fields, shaping the direction of healthcare policies and practices.

Introduction

Health guidelines are crucial in shaping clinical practice and public health policy, providing informative recommendations for healthcare professionals. These recommendations guide informed decision-making on specific clinical

actions such as interventions, diagnoses, and public health measures. As the final step in scientific literature production, guidelines are critical tools for knowledge translation, leading to improved healthcare outcomes (1, 2).



Clinical Practice Guidelines (CPGs) represent a subdivision of health guidelines known explicitly as management/treatment guidelines. The US Institute of Medicine defines CPGs as statements designed to optimize patient care through recommendations informed by systematic evidence reviews, assessing the benefits and harms of alternative care options (3). CPGs offer an appealing approach to connecting diverse research findings to everyday clinical practice (4).

Diverse health policies across medical institutions and national or international health entities contribute to developing guidelines in various medical areas. Hospitals may create guidelines, while organizations like the World Health Organization (WHO) produce guidelines for different health domains. These guidelines differ in development processes and recommendations (2, 5).

As a global health authority, WHO undertakes the critical task of developing guidelines in various health and scientific fields, with their practical and widespread use at the international level. Many countries endorse and adopt WHO guidelines in their medical institutions (1, 5, 6).

Guidelines are instrumental in ensuring evidence-based practices for preventing, diagnosing, and treating illnesses. However, their quality often exhibits significant variation, necessitating consistent criteria for assessment to enhance their accuracy and reliability.

Current options for assessing the quality of CPGs are the Appraisal of Guidelines for Research and Evaluation (AGREE) II tool and the RIGHT (Reporting Items for Practice Guidelines in Healthcare) checklist. The RIGHT checklist consists of 22 items designed to improve the transparency and quality of reporting CPGs. It covers various aspects of guideline development, including the introduction, methods, results, discussion, and funding. The RIGHT checklist aims to enhance the accuracy, reliability, and usefulness of CPGs by promoting comprehensive and transparent reporting (7).

The main difference between the RIGHT and AGREE II tools lies in their primary focus and purpose. The AGREE II tool is designed to evaluate the methodological quality and transparency of

CPGs. They assess various domains such as scope and purpose, stakeholder involvement, rigor of development, clarity of presentation, applicability, and editorial independence, with the goal of determining the trustworthiness and applicability of CPGs. On the other hand, the RIGHT checklist aimed at improving the transparency and quality of reporting CPGs. It focuses on enhancing the clarity and completeness of guideline reporting across essential components, including the introduction, methods, results, discussion, and funding. In summary, while AGREE II evaluates the methodological quality and transparency of guidelines, the RIGHT checklist specifically targets the transparency and completeness of reporting in guideline publications (7). However, the AGREE tool was developed to address this need, providing a systematic approach to assess clinical practice guidelines' methodological strategy and transparency (8, 9).

The importance of this study stems from the pivotal role that health guidelines play in influencing clinical practice and public health policy. However, the quality of guidelines often varies, highlighting the need for consistent assessment criteria to enhance their accuracy and reliability.

With the extensive international use of WHO guidelines, it is crucial to evaluate their quality to ensure evidence-based practices for preventing, diagnosing, and treating illnesses. Furthermore, given that health guidelines are among the items submitted to the office of different medical journals and considering the need for checking and reviewing them in order to be approved for publishing in the journal, there is a critical need for quality assessment to improve the accuracy and reliability of the guidelines.

There were some previous studies regarding appraising guidelines with the AGREE II tool, for example, the study of Zhan et al. titled "The quality of guidelines on the pancreatic perioperative enhanced recovery after surgery: a systematic quality appraisal using AGREE II" aimed to assess the quality of perioperative enhanced recovery guidelines following pancreatic surgery. The study suggests using the AGREE II tool as a benchmark for future

guideline development, stressing the standardization of the process, consideration of patient values, and emphasis on guideline applicability to establish high-quality, evidence-based recommendations (10). Moreover, the study of Fan et al. titled “Quality appraisal of clinical practice guidelines addressing massage interventions using the AGREE II” systematically assessed the methodological quality of clinical practice guidelines related to massage therapy using the AGREE II tool. It provided an overview of the current recommendations in these guidelines. The study suggested utilizing existing evidence in future updates, diversifying the expertise of expert panels, and taking into account patients’ values and preferences. Furthermore, it underscored the importance of clear and recognizable recommendations and stressed the need for enhanced rigor and standardization in formulating guidelines to effectively inform clinical practice.

Methods

The protocol and procedures employed in this

study were ethically reviewed and approved by the Ethics Committee at Shiraz University of Medical Sciences.

The criteria for choosing guidelines are as follows: 1) They were published in 2020 -2021, 2) WHO published them, and 3) They were treatment and management guidelines regardless of the type of disease.

First, the latest management/treatment guidelines for 2020-2021 from the WHO website have been downloaded. The search method was customizing the search engine of the WHO website to the years (2020 and 2021) with the keywords (treatment and/or management in their title). There were 13 of the latest management/treatment guidelines published by WHO in different medical areas. All guidelines were open access and available, and they could be downloaded without any limitation and free of charge. Access to these guidelines can be made through <https://www.who.int/publications/who-guidelines>.

These guidelines and their publication year are presented in Table 1.

Table 1. Appraised WHO guidelines and their publication year

Row	Title of the appraised guideline	Publication year
1	WHO recommendation on umbilical vein injection of oxytocin for the treatment of retained placenta	2020
2	Target product profiles for tuberculosis preventive treatment	2020
3	WHO consolidated guidelines on tuberculosis Module 4: Drug-resistant tuberculosis treatment	2020
4	WHO recommendation on routes of oxytocin administration for the prevention of postpartum hemorrhage after vaginal birth	2020
5	WHO recommendation on advance misoprostol distribution to pregnant women for prevention of postpartum hemorrhage	2020
6	WHO recommendations on drug treatment for non-severe hypertension in pregnancy	2020
7	Guide for clinical case management and infection prevention and control during a measles outbreak	2020
8	Consolidated HIV strategic information guidelines: Driving impact through program monitoring and management	2020
9	Leprosy/Hansen Disease: Management of reactions and prevention of disabilities	2020
10	Guidelines for diagnosing and managing disseminated histoplasmosis among people living with HIV	2020
11	Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease	2020
12	Guidelines on the management of chronic pain in children	2020
13	WHO guidelines on the dairy protein content in ready-to-use therapeutic foods for the treatment of uncomplicated severe acute malnutrition	2021



The AGREE II tool was selected to assess these guidelines. The AGREE II is freely available on its website and can be downloaded without any limitation and free of charge. It is openly accessible via <https://www.agreetrust.org/>.

AGREE II, an enhanced version of the original AGREE tool, assesses the quality of guidelines, offers a methodological strategy for their development, and guides what information needs to be reported and how. Comprising 23 critical items within six domains and two global rating items known as “Overall Assessment,” AGREE II captures unique dimensions of guideline quality (11).

Each domain evaluates a specific aspect of the guideline quality. *Domain 1, “Scope and Purpose,”* focuses on the guideline’s overall objective, specific health issues, and the population it caters to (items 1-3). *Domain 2: Stakeholder Involvement* measures how much the guideline was developed by appropriate stakeholders and their intended users’ views (items 4-6). *The third domain focuses on the rigor of development,* including gathering and synthesizing evidence, the methods used to formulate recommendations, and

how to update them (items 7-14). *Domain 4: Clarity of Presentation* (items 15-17) covers the guidelines’ language, structure, and format. *Domain 5* focuses on likely implementation barriers, strategies to improve uptake, and resource implications (items 18-21). *Items 22-23 relate to Editorial Independence:* formulating unbiased recommendations. The guideline will be rated on its quality and whether it should be recommended for use in practice. *Overall assessment* includes assessing the guideline’s quality and recommending its use in practice (12).

Each item on the AGREE II scale and the two global rating items are rated on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The AGREE II User’s Manual offers detailed guidance on rating items on the rating scale.

Domain scores are calculated by adding all item scores in a domain and scaling the total as a percentage of the maximum possible score (12).

Example:

If two appraisers give the following scores for Domain 1 (Scope & Purpose),

	Item 1	Item 2	Item 3	Total
Appraiser 1	5	6	6	17
Appraiser 2	6	6	7	19
Total	11	12	13	36

Maximum possible score = 7 (strongly agree) * 3 (items) * 2 (appraisers) = 42

Minimum possible score = 1 (strongly disagree) * 3 (items) * 2 (appraisers) = 6

the scaled domain score will be:

$$\frac{\text{Obtained score} - \text{Minimum possible score}}{\text{Maximum possible score} - \text{Minimum possible score}} * 100 = \frac{36-6}{42-6} * 100 = \frac{30}{36} * 100 = 83 \%$$

*If items are not included, appropriate modifications to the calculations of maximum and

minimum possible scores are required (13).

The quality of each guideline was assessed based on domain scores. Specifically, based on acceptance between appraisers, the quality of a guideline was rated as “high” when the five domains scored more than 60%, “average” when three to four domains scored more than 60%, and “low” when no more than two domains scored more than 60%, according to the literature review (13).

In order to analyze the collected data, this study employed the mean and standard deviation as statistical measures. Additionally, Microsoft Excel software (version 2016) was utilized for data processing. The calculation of the concordance rate among reviewers was deemed unnecessary, as the presence of only two appraisers sufficed for determining the mean values between them.

In the present study, each guideline was assessed by two appraisers. One of them was a medical journalist with a good command of the English language, and the other was a general physician.

Notably, AGREE II is intended to be used by a wide range of stakeholder groups, including health care providers, guideline developers, policymakers, and educators. The appraisers have diverse backgrounds and expertise that align with the intended users of AGREE II. Additionally, they have undergone training and demonstrated proficiency in critical appraisal skills, making them well-equipped to

assess the guidelines using AGREE II criteria.

In detail, the AGREE II is intended to be used by the following stakeholder groups: 1) by healthcare providers who wish to undertake their assessment of a guideline before adopting its recommendations into their practice; 2) by guideline developers to follow a structured and rigorous development methodology, to conduct an internal assessment to ensure that their guidelines are sound, or to evaluate guidelines from other groups for potential adaptation to their context; 3) by policymakers to help them decide which guidelines could be recommended for use in practice or to inform policy decisions; 4) by educators to help enhance critical appraisal skills amongst health professionals and to teach core competencies in guideline development and reporting (13).

Results

Six domains of the 13 guidelines were evaluated using the AGREE II tool, with scaled domain percentages for all appraisers, as listed in Table 2. With regards to scaled domain percentages, scope and purpose scores were 78% to 97%; stakeholder involvement scores were 47% to 97%; rigor of development scores were 28% to 95%; clarity of presentation scores ranged from 78% to 94%; applicability scores were 73% to 90%; editorial independence scores ranged from 38% to 96%.

Table 2. Scaled domain percentages for all appraisers for each guideline

Row	Name of the guideline	Scope and purpose	Stakeholder involvement	Rigor of development	Clarity of presentation	Applicability	Editorial independence
1	Guidelines on the management of chronic pain in children	94	92	86	86	83	92
2	WHO recommendation on advanced misoprostol distribution to pregnant women for the prevention of postpartum hemorrhage	94	92	93	83	85	96



Table 2. Scaled domain percentages for all appraisers for ...(continued)

Row	Name of the guideline	Scope and purpose	Stakeholder involvement	Rigor of development	Clarity of presentation	Applicability	Editorial independence
3	Consolidated HIV strategic information guidelines: Driving impact through the program monitoring and management	92	92	90	83	90	92
4	WHO recommendation on routes of oxytocin administration for the prevention of postpartum hemorrhage after vaginal birth	94	94	93	83	85	96
5	Target product profiles for tuberculosis preventive treatment	97	92	80	94	85	88
6	WHO recommendation on umbilical vein injection of oxytocin for the treatment of retained placenta	94	94	95	83	85	96
7	Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease	89	81	77	83	75	58
8	Leprosy/ Hansen Disease: Management of reactions and prevention of disabilities. Technical guidance	78	47	52	83	73	38
9	Guidelines for Diagnosing and Managing Disseminated Histoplasmosis among People Living with HIV	89	92	86	89	83	92

Table 2. Scaled domain percentages for all appraisers for ...(continued)

Row	Name of the guideline	Scope and purpose	Stakeholder involvement	Rigor of development	Clarity of presentation	Applicability	Editorial independence
10	WHO consolidated guidelines on tuberculosis. Module 4: Treatment - drug-resistant tuberculosis treatment	89	86	78	78	83	83
11	Guide for clinical case management and infection prevention and control during a measles outbreak	86	61	28	92	73	83
12	WHO guidelines on the dairy protein content in ready-to-use therapeutic foods for the treatment of uncomplicated severe acute malnutrition	86	89	89	83	79	92
13	WHO recommendations on drug treatment for non-severe hypertension in pregnancy	92	97	90	86	90	96

The quality of each guideline was assessed based on the domain scores, specifically, and on the

acceptance between appraisers. Table 3 represents the quality of each guideline.

Table 3. The quality of each guideline

Name of the guideline	Quality of Guideline
Guidelines on the management of chronic pain in children	High
WHO recommendation on advance misoprostol distribution to pregnant women for prevention of postpartum hemorrhage	High
Consolidated HIV strategic information guidelines: driving impact through the program monitoring and management	High
WHO recommendation on routes of oxytocin administration for the prevention of postpartum hemorrhage after vaginal birth	High
Target product profiles for tuberculosis preventive treatment	High
WHO recommendation on umbilical vein injection of oxytocin for the treatment of retained placenta	High
Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease	High



Table 3. The quality of ...(continued)

Name of the guideline	Quality of Guideline
Leprosy/Hansen Disease: Management of reactions and prevention of disabilities. Technical guidance	Average
Guidelines for diagnosing and managing disseminated histoplasmosis among people living with HIV	High
WHO consolidated guidelines on tuberculosis. Module 4: Treatment drug-resistant tuberculosis treatment	High
Guide for clinical case management and infection prevention and control during a measles outbreak	High
WHO guideline on the dairy protein content in ready-to-use therapeutic foods for treatment of uncomplicated severe acute malnutrition	High
WHO recommendations on drug treatment for non-severe hypertension in pregnancy	High

The overall assessment shows the personal judgment of the appraisers for each guideline regarding the quality of appraised guidelines. Table 4 represents overall assessment scores and their averages for all 13 guidelines from the AGREE II tool appraisals.

Table 4. Overall assessment scores and their averages for all 13 guidelines from the AGREE II tool appraisals

	Appraiser 1	Appraiser 2	Average	SD
Guidelines on the management of chronic pain in children	6	7	6.5	0.70
WHO recommendation on advanced misoprostol distribution to pregnant women for prevention of postpartum hemorrhage	5	7	6	1.41
Consolidated HIV strategic information guidelines: driving impact through the program monitoring and management	5	7	6	1.41
WHO recommendation on routes of oxytocin administration for the prevention of postpartum hemorrhage after vaginal birth	5	7	6	1.41
Target product profiles for tuberculosis preventive treatment	6	6	6	0
WHO recommendation on umbilical vein injection of oxytocin for the treatment of retained placenta	5	7	6	1.41
Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease	4	5	4.5	0.707
Leprosy/Hansen Disease: Management of reactions and prevention of disabilities. Technical guidance	5	5	5	0
Guidelines for Diagnosing and Managing Disseminated Histoplasmosis among People Living with HIV	6	7	6.5	0.707
WHO consolidated guidelines on tuberculosis. Module 4: treatment-drug resistant tuberculosis treatment	5	7	6	1.41
Guide for clinical case management and infection prevention and control during a measles outbreak	5	6	5.5	0.707
WHO guidelines on the dairy protein content in ready-to-use therapeutic foods for the treatment of uncomplicated severe acute malnutrition	5	6	5.5	0.707
WHO recommendations on drug treatment for non-severe hypertension in pregnancy	6	7	6.5	0.707

Table 5 represents the appraiser's recommendations for using guidelines. All of them were recommended,

except that some needed modifications in terms of their development process.

Table 5. Appraiser recommendations for the use of guidelines

	Appraiser 1	Appraiser 2
Guidelines on the management of chronic pain in children	Recommended	Recommended
WHO recommendation on advanced misoprostol distribution to pregnant women for prevention of postpartum hemorrhage	Recommended	Recommended
Consolidated HIV strategic information guidelines: driving impact through the program monitoring and management	Recommended, with modifications	Recommended
WHO recommendation on routes of oxytocin administration for the prevention of postpartum hemorrhage after vaginal birth	Recommended	Recommended
Target product profiles for tuberculosis preventive treatment	Recommended	Recommended
WHO recommendation on umbilical vein injection of oxytocin for the treatment of retained placenta	Recommended	Recommended
Guidelines for the management of pregnant and breastfeeding women in the context of Ebola virus disease	Recommended, with modifications	Recommended, with modifications
Leprosy/Hansen Disease: Management of reactions and prevention of disabilities. Technical guidance	Recommended	Recommended, with modifications
Guidelines for Diagnosing and Managing Disseminated Histoplasmosis among People Living with HIV	Recommended	Recommended
WHO consolidated guidelines on tuberculosis. Module 4: Treatment-drug-resistant tuberculosis treatment	Recommended, with modifications	Recommended
Guide for clinical case management and infection prevention and control during a measles outbreak	Recommended	Recommended
WHO guideline on the dairy protein content in ready-to-use therapeutic foods for treatment of uncomplicated severe acute malnutrition	Recommended, with modifications	Recommended
WHO recommendations on drug treatment for non-severe hypertension in pregnancy	Recommended	Recommended

Discussion

The subject of this study is groundbreaking within the Islamic Republic of Iran, as there is a notable absence of related research in this area. While numerous international studies have employed the AGREE II tool in various research domains, few have specifically scrutinized WHO guidelines. A survey of recent, relevant studies unfolds as follows:

In a study by Stephanie et al. titled "Appraisal of WHO Guidelines in Maternal Health Using the AGREE II Assessment Tool," the authors focused on four guidelines, revealing robust development

processes and quality. The study emphasized challenges related to applicability (14). Diverging from this, the present study evaluates all treatment/management guidelines rather than exclusively maternal health. The findings suggest fewer applicability challenges over time, particularly in the context of methods guidelines.

Mohan et al.'s study on "Electronic Intrapartum Fetal Monitoring: A Systematic Review of International Clinical Practice Guidelines" reviewed seven recently updated guidelines. The study advocated attention to different AGREE II domains during the guideline development process

(15). In contrast, our study reveals that all appraised guidelines meet the criteria of various AGREE II domains, indicating a higher overall quality.

Nygaard et al.'s study on the "Appraisal of Clinical Practice Guidelines on the Management of Obstetric Perineal Lacerations and Care using the AGREE II Tool" included 12 guidelines in English and Spanish. The results indicated varying scores, with ten guidelines scoring over 50%, three over 70%, and two scoring below 50%. The study emphasized the need for improved guideline quality and underscored the usefulness of AGREE II in evaluating existing guidelines (16).

Arieta-Miranda et al.'s study, "Quality Assessment of Clinical Practice Guidelines for the Management of Pediatric Dental Emergencies Applicable to the COVID-19 Pandemic, using the AGREE II Tool," reviewed 23 guidelines, emphasizing the importance of AGREE II domains in enhancing guideline quality (17).

Another study evaluated WHO guidelines across various clinical areas, assessing 124 guidelines with recommendations and modifications. The study concluded that WHO guidelines require further development improvements (18). A similar conclusion is drawn in the study on gestational diabetes mellitus guidelines (19), emphasizing the need for systematic approaches, regular updates, and attention to regional adaptation.

Amer et al.'s study on "Quality Assessment of Evidence-based Clinical Practice Guidelines for the Management of Pregnant Women with Sickle Cell Disease Using the AGREE II Tool" recommended using AGREE II to assess guideline quality (20).

Zhang et al.'s study on "Current Guidelines on the Management of Gestational Diabetes Mellitus: A Content Analysis and Appraisal" assessed 14 guidelines and 361 recommendations, revealing discrepancies and inconsistency among guidelines, necessitating improvements by experts in the field (21).

Sephien et al. conducted a thorough investigation titled "A Comprehensive Evaluation of Clinical Practice Guidelines in Heart Failure Using the AGREE II Tool." Their study involved a comprehensive search of EMBASE and PubMed,

targeting CPGs published from January 1, 2021, to September 8, 2022, focusing on managing heart failure. The AGREE II (Appraisal of Guidelines for Research & Evaluate II) instrument was utilized to assess the methodological quality of the CPGs. A total of 3,269 citations were initially identified, from which 6 CPGs were finally included for evaluation. Among these, two CPGs were published by cardiology associations in North America, two in Asia, and one each in Europe and South America. The results indicated varying median scores for the AGREE II domains: 100% for scope and purpose, 71% for stakeholder involvement, 71% for the rigor of development, 100% for clarity of presentation, 43% for applicability, 100% for editorial independence, and 64% for overall assessment. Based on these findings, the authors recommended adopting a standardized approach to CPG development. They proposed using the AGREE II tool to enhance the methodological rigor, reporting, and applicability of CPGs (22).

Ou et al.'s study aimed to evaluate the quality of CPGs for motor neuron diseases (MNDs) and related disorders. A total of 15 CPGs were assessed, with ten focusing on MND and five on spinal muscular atrophy. The overall quality of the CPGs was poor, with most recommendations based on low-quality evidence and having weak strength. Key areas requiring improvement included applicability, rigor of development, and stakeholder involvement. Notably, CPGs that were updated, evidence-based, and used a CPG quality tool and grading system were associated with higher scores in specific domains. The study concluded a need for significant improvement in developing high-quality CPGs for MNDs and related disorders and emphasized the importance of utilizing CPG quality tools to address the evidence gap (23).

Our findings suggest that recent guidelines exhibit higher AGREE II ratings than earlier ones, indicating potential improvement in the overall quality of assessed guidelines. A detailed exploration of scored domains reveals strengths and positive attributes across all guidelines.

As in other studies, several limitations in this study's findings should be considered. However,

there is no threshold for distinguishing between “high quality” and “poor quality” standards. Thus, appraisers were left to interpret the results themselves. It is, therefore, necessary to evaluate the results of an AGREE evaluation with caution and in the context of other factors.

In addition, AGREE II should explain thoroughly how they completed the two overall assessments. Regarding recommendations for usage, guideline appraisers should describe the criteria upon which their overall assessments are based so that the readers may determine whether they would have made the same decision if they had worked in the same healthcare context (3).

The practical implications of the findings were an important aspect to consider in this research. The guidelines have been evaluated for their quality and impact on healthcare practice and policy based on the information provided. The high-quality ratings of the guidelines suggest that they can positively influence healthcare practice and policy. For example, guidelines with high scores in stakeholder involvement and rigor of development can be seen as reliable and inclusive, potentially guiding healthcare practitioners in making informed decisions. Furthermore, these guidelines can also influence future research and development in related fields, shaping the direction of healthcare policies and practices.

Conclusion

In conclusion, the evaluations indicate that the process of guideline formulation and the quality of reporting in the most recent management/treatment guidelines released by the WHO in 2020-2021 are sound and reliable for use in different health systems. Evidently, all these guidelines are of the best possible quality and can be widely used.

Also, given that guidelines are among the items submitted to the office of different medical journals

and also due to the need for checking and reviewing them in order to be approved for publishing in the journal, the AGREE II tool will help both improve the submitted guidelines and provide a means for medical journalism students, reviewers of the submitted articles, and journal editors to be able to evaluate the guidelines submitted to the office of medical journals. They can use the AGREE II tool for harmonizing the quality of their guidelines from the medical journalistic point of view as it is concluded from this study that the AGREE II tool is helpful for use by medical journalists who intend to appraise different guidelines submitted to the offices of medical journals.

Declaration

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Conflicts of Interests

The authors declared no conflict of interest.

Ethical Statement

The current research is extracted from the master's thesis on the same subject and title belonging to Zahra Reyhani, and the protocol and procedures employed in this study were ethically reviewed and approved by the Ethics Committee at Shiraz University of Medical Sciences (Code: IR.SUMS.REC.1400.506). The online version of the certificate is available at the following address and is open to the public: <https://ethics.research.ac.ir/IR.SUMS.REC.1400.506>

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Authors' contributions

All authors participated in all stages of this study.

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