

Elements of Integrating Traditional and Complementary Medicine into Primary Healthcare: A Systematic Review

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ABSTRACT

Introduction: Patients prefer primary healthcare to include conventional medical services together with complementary medicine. The process of integration can be a stressful process for providers of both complementary and modern medical services.

Aim: This study aimed to determine the elements of integrating traditional and complementary medicine into primary healthcare.

Materials and Methods: This systematic review searched the Web of Science, Scopus, PubMed, Ovid, and EMBASE from January 2000 to February 2017. Data were analysed by the content analysis method.

Results: The search of databases resulted in 1391 records. The duplicates were removed, titles and abstracts were screened,

and irrelevant records were excluded. Finally, 25 studies were included and five elements identified that are important for integrating traditional and complementary medicine into primary health care. Eighteen studies addressed communication and collaboration, 12 studies addressed patient-centeredness, 12 studies addressed types of practice, 11 studies mentioned education and training, 8 studies mentioned policy and plan, 7 studies addressed financial support.

Conclusion: Integrating traditional medicine into primary healthcare requires government support and policy-making. Communication, professional dealings, and training are important and influential in all stages of integration. Integrated services should be culturally acceptable and financially covered by insurance.

Keywords: Integrated healthcare, Primary healthcare, Traditional medicine

INTRODUCTION

The WHO defines traditional medicine as “the sum total of the knowledge, skill and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness” and complementary medicine as “a broad set of health care practices that are not part of that country’s own tradition or conventional medicine and are not fully integrated into the dominant health-care system” [1].

The interest in traditional and complementary medicine in both the developing and the developed countries is increasing [2]. Easy access, widespread acceptance by the general public, few side-effects, and contribution to economic growth are some of the positive features of traditional medicine [3]. Given the difficulty with having access to modern healthcare services, traditional and complementary medicine can stand as an alternative for the primary healthcare services [4]. Certain forms of traditional medicine, complementary and alternative, play an increasingly important role in healthcare and health sector reform worldwide [5].

Traditional medicine is one of the primary healthcare resources [6]. Primary healthcare involves the first contact care delivered by healthcare providers [7]. Patients prefer primary healthcare to include conventional medical services with complementary medicine [8]. Some studies have shown that the chance of death in patients with integrated medicine is reduced [9-12].

In a system where traditional medicine and complementary medicine are integrated, they are recognised and introduced into all areas of healthcare [3]. The process of integration can be a stressful process for providers of both complementary and modern medical services [13]. The WHO supports the integration of traditional and complementary medicine into the national health system of countries [1].

The aim of this study was to identify the elements that have been mentioned concerning the integration of traditional and complementary medicine into primary healthcare and that need to be considered and prioritised by policymakers.

MATERIALS AND METHODS

Data Sources and Search Strategy

This study was planned according to the “Preferred Reporting Items for Systematic Reviews and Meta Analyses” (PRISMA) guidelines and registered in Iran university of medical science (identification No: 9223476203/2016). The needed data were gathered by searching PubMed (1966-present), Embase (1947-present), Web of Science (1900-present), Scopus (1966-present), and Ovid (1946-present) from January 2000 to February 2017 and the last search was run on 11 February 2017. The search keywords were: (Integrat* OR collabor* OR converg* OR incorpor* OR inclu* OR cooper* OR contribut* OR blend* OR merg* OR assimilat*) AND (Tradition* OR complement* OR alternat* OR home OR primitive OR indigenous OR folk* OR ethno*) AND (Medic* OR therap* OR remed* OR heal* OR treat* OR cure*) AND (primary healthcare OR primary health care OR primary care OR PHC). All the related fields of the Medical Subject Headings (MeSH) and Emtree were searched. MeSH terms of traditional medicine, complementary medicine, integrative medicine, primary healthcare, East Asian traditional medicine, Korean traditional medicine, Tibetan traditional medicine, Mongolian traditional medicine, African traditional medicine, and Chinese traditional medicine were searched in PubMed. Combinations of traditional medicine keywords were also searched in the titles of the papers. The reference lists of eligible studies were scanned and hand searched for related studies. An example of the search strategy is provided in [Appendix 1].

Inclusion and Exclusion Criteria

The included criteria were: 1) Papers published in English; 2) Papers that focused on elements of integrating traditional or complementary

medicine into primary health care; 3) Papers published from January 2000 to February 2017; 4) Access the full text of papers with any design (Qualitative, quantitative, mixed method)

The excluded criteria were: 1) Studies whose abstracts were only published; 2) Letters to the editor, editorials, commentaries and case reports; 3) Studies pointing to integration elements other than the issue of integrating traditional medicine into primary healthcare.

Data Extraction and Quality Appraisal

Data extraction was performed using a form that included the name of the author, year of publication, study design, characteristics and number of participants, and the introduced elements. Data were extracted by one author (Ahmad Negahban) and subsequently checked by another author (Mohammadreza Maleki).

The collected data were analysed using the content analysis method, which is a way of identifying, analysing, and reporting themes within a particular text [14,15]. Data was reviewed several times for familiarisation. There was no specific grouping before the analysis and codes and themes were developed according to their repetition within the text.

The analysis and coding steps consisted of getting familiar with the data by reading it several times, identifying and extracting primary codes, merging the codes to build themes, reviewing and completing the themes, naming and defining the themes, and assuring reliability of the codes and themes by reaching an agreement between the two coders.

Items of [Table/Fig-1] were used to appraise the quality of the included studies [16]. These items were selected because they can assess qualitative, quantitative, and mixed studies. Among the eligible studies, 24 were of high quality and one was of moderate quality; all of these were included in the analysis.

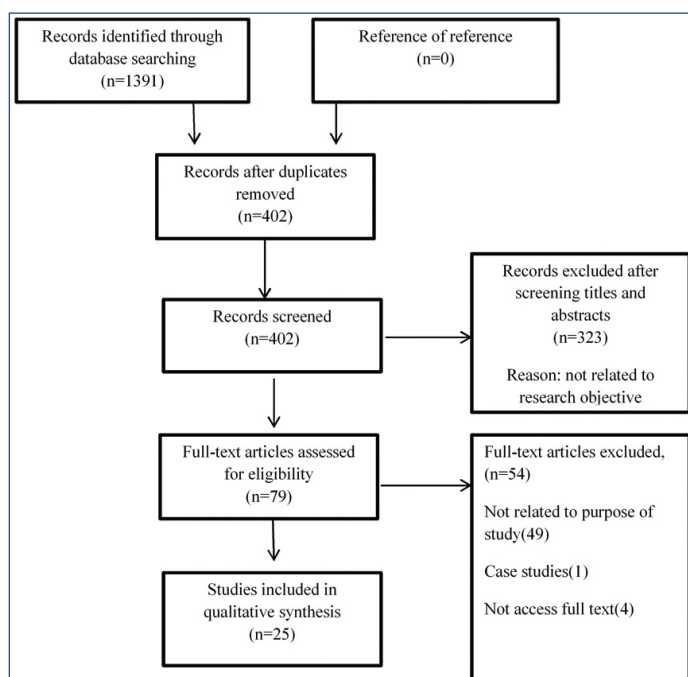
Number	Item
1	An explicit theoretical framework and/or literature review
2	Aims and objectives clearly stated
3	A clear description of context
4	A clear description of the sample and how it was recruited
5	A clear description of methods used to collect and analyse data
6	Attempts made to establish the reliability or validity of data analysis
7	Inclusion of sufficient original data to mediate between evidence and interpretation

[Table/Fig-1]: The used quality appraisal tool.

ID	Author, year	Study objective	Study design	Participants (N)	Integration elements
1	Obijiofor C [17]	Developing a policy to bring the traditional knowledge to the main stream of medicine by creating integrated clinics and providing demographic information on use of TM	Questionnaire	Patients (800)	Setting up IM courses in medical colleges Training the CAM healers Training the physicians, nurses and other health workers Recognition and identification of traditional treatments and traditional healer Recording and documenting the TM Increasing public awareness Developing electronic networks between researchers and civil society Government should have economic, political, and legal framework National policy in support of developing TM Collaboration between government, hospital societies, healers association, and Non-Government Organisations (NGOs)
2	Frenkel MA et al., [18]	Proposing a comprehensive and rational strategy for integration of CAM with primary health care	Combination of literature review, interview, FGD, Family Medicine residents' courses, providers of CAM, clinical test at field	Patients, family physicians, providers of CAM	Patient-centeredness (expectations and needs of patients) Communication between patient and physician (patient enforcement and decision involvement) Communication and collaboration with traditional practitioners (common language can create collaboration) Physician in charge for follow and evaluation of treatment plan
3	Van Haselen RA et al., [19]	Evaluation of perspective of professionals of primary health care towards the need for integration of CAM and its ways	Questionnaire	Workers of primary health care including: physicians (149), nurses (24), other workers (32)	Referral or proposal of referral Patient needs Necessary need for more training and awareness of primary health care workers on CAM Ability to offer more treatments and increasing the patient choice Increasing patient satisfaction

RESULTS

The search of databases resulted in 1391 records that were imported to EndNote X5 software. The duplicates were removed, titles and abstracts were screened and irrelevant records were excluded. Afterwards, full texts of the remaining records were reviewed for eligibility. Finally, 25 studies were included. [Table/Fig-2] conveys the screening and selection process according to a PRISMA flow diagram.



[Table/Fig-2]: PRISMA flow diagram for screening and selection of the included studies.

Dimensions of Integrating Traditional Medicine into Primary Healthcare

[Table/Fig-3] displays the summary of included studies and their characteristics about the integration of traditional and complementary medicine into primary healthcare [8, 17-40].

Communication and Collaboration: Eighteen studies addressed the consultation, collaboration, and active participation of physicians, and complementary medicine practitioners [8,17,19,21,26,28-31,33,34,38,39].

Patient-Centeredness: Twelve studies mentioned the demands and needs of patients and the centeredness of patients and sickness [18,19,21,22,27,30,32-34,36,38,40].

4	Kelly M et al., [20]	Meaning the CAM and integration in perspective of policy makers and identifying its facilitators and barriers	Qualitative study	State policy makers (10)	Evidence-based research on CAM Accreditation and training standards for providers of CAM Economic issues Construct issues such as lack of insurance coverage and the system resistance Sponsorship role and strategic planning Having a model for providing the CAM
5	Ben-Arye E et al., [21]	Enforcing the family physicians as coordinator and manager of patients who request the CAM	Educational approach	Residents and specialists of Family Physician (12)	Using online resources and collaboration with providers of CAM Evidence for CAM efficacy when considering referral Bio-spiritual-social issues Disease-oriented Patient-orientation
6	Sundberg T et al., [22]	Describing some key findings of developing and implementing a model for integrated medicine for primary health care	Qualitative inductive study	General physicians, providers of CAM, specialists, managers of primary health care, city council members (48)	Common integrated medicine documentation should reflect multi-modular management, and preferably be computer-based Patient-centeredness Inter-disciplinary and non-hierarchical combination of conventional and CAM for treatment of patient cases Attachment of the integrated medical model for standard clinical treatment of each patient by agreement between the family physician and the team of complementary medical service providers. Investment and resource allocation for improving and planning of the providers Health economic evaluation of integrated medicine compared with conventional medicine as an incentive for management decisions Availability of training on integrated medicine for the general physicians
7	Frenkel M et al., [8]	Expressing the viewpoints of patients treated in a large family physician clinic on integration of complementary and alternative medicine with primary health care	Questionnaire	Patients (502)	Family physician as the provider and supervisor of primary health care Providers of CAM as a part of family medicine clinic
8	Garner MJ et al., [23]	Assessing perspectives of two teams of healthcare providers on effects of integrating the chiropractic	Combined methods (questionnaire, FGD for evaluation of health teams)	Physicians and registered nurses (12), chiropractors (2)	Choosing an interested person for cooperation with health care team Constructive communication and planning within the defined health care team and the chiropractors Formal training sessions for health workers to remove the false imagination about chiropractors and weekly clinical sessions for the chiropractors
9	Ben-Arye E et al., [24]	Assessing the distance between theory and real practice by reviewing the attitudes of patients, physicians and providers of CAM about the integration of CAM with primary health care	Questionnaire	Patients (1150), primary health care physicians (333), providers of CAM (241)	Main role of the physicians as referral for CAM Family physicians as providers of CAM
10	Ben-Arye E et al., [25]	Assessing the viewpoints of patients on integration of complementary and alternative medicine with primary health care and finding the best model of integration	Questionnaire	Patients (3840)	Major role of the family physicians: correct and safe referral of the patients to providers of TM Cultural multiplicity
11	Ben-Arye E et al., [26]	Comparing two social groups to assess the effects of modernisation on use of traditional, complementary, and alternative medicine	Questionnaire	Primary health care patients (1341)	Family physician as the beginning point of referral to CAM Native participants had higher expectations from their physician to refer them to CAM and provide CAM in the clinic. Any integration of CAM should be based on the culture of the society
12	Joos S et al., [27]	Determining the attitudes of the family physicians towards the CAM and its use	Questionnaire	Family physicians (1027)	Training and research on CAM according to the international literature should be increased Patients are willing to receive the CAM from those physicians that have good knowledge All CAM treatments that are evidence-based should be covered by health insurance Standards of training and quality should be defined by health policies. Role of the naturopaths (heilpraktikers) in the health care system of Germany should be revised immediately Integrating the evidence-based methods of CAM in the undergraduate courses Practical integration of CAM in the residency courses
13	Wu J et al., [28]	Assessing the quality of trainings provided by the joint clinics of acupuncture to the students of acupuncture and conventional medicine Assessing the referral of primary health care physicians to acupuncture and other medicines Assessing the quality of communication between acupuncture providers and the primary health care physicians	Questionnaire	Interns (24), medical students (2), acupuncture supervisors (2)	Sending a summary of diagnosis, treatments and recommendations to the primary health care physician via an electronic message or telephone 33% of the primary health care physicians practice acupuncture as a therapy

14	Ben-Arye E, [29]	Discovering the perspectives of primary health care and physicians and non-physician providers of CAM at HMOs about integrated medicine	Questionnaire	Primary health care physicians (333), CAM providers (241)	Physicians trained in both medicines as mediators of integration Physicians support a model of group work in which physician is dominant; like the physicians' role in primary health care Non-physician providers of primary health care support a model of teamwork Physicians trained in both medicines mostly use the referral sheet as the preferred communication tool between physician and the provider of CAM
15	Templeman K et al., [30]	Review and identification of models for integrated medicine around the world and identification of influencing factors in success of the integration of conventional and CAM in primary health care	Literature review	database searches, reference lists, desktop searches, texts, and relevant website searches	Evidence-based treatment Integrated therapies without any hierarchy of conventional medicine and CAM Patient-centeredness and focus on health rather than sickness Efficiency and safety of CAM Safety of CAM products Management of CAM products along with training, qualification, and regulation of CAM providers Strategic cooperation of the methods and technologies of both complementary and conventional medicine rather than just being together Highlighted role of medical elites
16	Ben-Arye E et al., [31]	Discovering the perspectives of parents regarding the use of CAM for their children and assessing their perspective towards the concept of physician-parents relation and physician-complementary medicine provider relation	Questionnaire	Parents (599)	Relation between physician and CAM provider can improve the health and safety of children Highlighted role of physicians in referral to CAM and important role of physicians in providing CAM services
17	Ben-Arye E et al., [32]	Studying how patients from various regions of the country see the possibility of adding herbal medicine to primary health care teams in local clinics	Questionnaire	Patients (3713)	Depending on various cultural attitudes Primary health care physicians start to talk with their patients about CAM and herbal drugs
18	Jong MC et al., [33]	Expressing the viewpoints of patients on integration of CAM with primary health care	Combined methods (questionnaire, electronic panel, FGD)	Patients (416), electronic panel (3449), FGD (10)	General physician as referral and collaborates of the CAM providers (for patients) Developing policies for communication with CAM and referral to the providers of CAM in primary health care
19	Chung VCH et al., [34]	Creating potential strategies for development of collaboration between the conventional and Chinese TM	FGD and Delphi technic	Physicians (50), Chinese TM practitioners (50), Delphi with political stakeholders of conventional and Chinese medicine	Physicians of both paradigms should have common goal of providing patient-centered care Promotion and development of protocols for joint care and information exchange Enforcing the collaborations between professionals and leadership for integration Attitudes of political stakeholders about possibility of strengthening the trust and mutual learning of conventional and Chinese medicine and increasing the innovation and government support
20	Shuval, JT et al., [35]	Discovering the perspectives of primary health care physicians which have integrated the CAM with biomedicine, towards the boundaries they encounter in their daily clinics and discovering how to deal with epistemological problems and potential disagreements	In-depth interview	Family Physicians (15)	Practice boundaries Identity boundaries Epistemological boundaries Cognitive boundaries Organisational boundaries Social boundaries Attending conferences and groups to remove the social boundaries No insurance coverage for CAM Secret use of CAM methods with biomedicine methods Cultural diversity Behavior and values of family physicians which consider the CAM as an inseparable part of treatment Quality of CAM methods Time and place of providing CAM
21	Hunter J et al., [36]	Determining the success and challenging factors of integrated medicine clinics	Combined methods of qualitative and quantitative	Patients (97)	Common perspective, an open and clear culture, Reliable sponsors, appropriate facilities, trust in the capacity and ability of other providers Patient-oriented care Marketing strategies and trying various therapies and clinical services Financial planning Management of staff and provider turnover Balance between physicians of conventional medicine and other providers and also between the personnel and the provided services Building a team of integrated medicine Creating research capacity
22	Owolabi OO et al., [37]	Discovering viewpoints and justifications of stakeholders about join of the traditional midwives to the health system	Discussion by E-mail	Front line workers of care and health and citizens (193)	Based on structure of health system Local and international evidence on efficacy, need, acceptance, and feasibility
23	Gray B et al., [38]	Studying the perspectives of workers about theory and practice of models of integrated medicine regarding the affecting factors of referral	Qualitative method with semi-structured interviews	Physicians (2), Naturopaths (2), Osteopaths (2) from two primary health care clinics	Relations of the professionals and the referral networks have a major role in effectiveness of the integrated medicine clinics. Sharing the philosophy and common beliefs about integrated medicine and holistic medicine Personal and professional relations between providers show mutual trust and respect. Mutual relations increase the referrals. Cooperation between professionals

24	Habtom GK [39]	Assessing the perception and perspective of modern medicine practitioners and TM practitioners about TM methods and analysing the use of TM	Questionnaire and interview with key individuals	Physicians (250), traditional practitioner (250), 1657 families	Selective integration of TM methods with primary health care Developing the political, legal, and supervision for the TM methods regarding national policies and laws Improvement and conduct of scientific research on medicinal herbs for collaboration with traditional practitioners and proving safety, efficacy, and quality of traditional drugs Ensuring intellectual property rights as priorities of government agenda to maintain the native knowledge of TM Creating an economic, supervision, and political environment for local production of traditional drugs and developing the industries that increases the access by producing standard drugs Registration and regulation of traditional drugs according to the instructions of the WHO Publishing information about the proper use of traditional drugs Creating capacity of human resources and material to carry out and complete the institutionalisation strategies
25	McGuire C et al., [40]	Improving the perception of facilitators and barriers of the integrating psychosomatic medicine with primary health care and describing the experiences of providers of psycho-somatic cares	Qualitative analysis of semi-structured telephone interviews	Providers of psychosomatic cares (12)	Systematic changes: care based on values and beliefs, community savings, responsible care, reviewing patient reports for assessing quality of care Increasing education on psycho-somatic medicine and self-care for service providers and interaction with providers of psychosomatic primary care at the policy making level Insurance coverage for psychosomatic medicine Sufficient time for visits at the clinics

[Table/Fig-3]: Summary of included studies and their characteristics [8,17-40].

CAM: Complementary and alternative medicine; IM: Integrative medicine; FGD: Focus group discussion; HMO: Health maintenance organization

Practice: Twelve studies addressed types of services that would be integrated into primary healthcare [17,20-22,25-27,30,32,35,37,39].

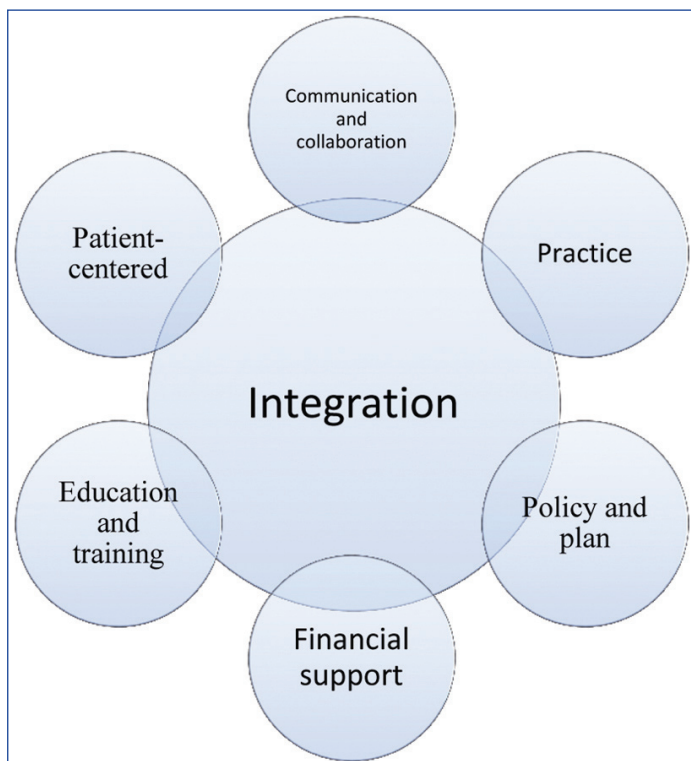
Education and training: Eleven studies mentioned education and training in terms of training to be delivered to physicians, nurses, healthcare workers and the general population, as well as education in integrative medicine in medical colleges and the use of online resources [17,19,21-23,27,29,30,39,40].

Policy and plan: Eight studies mentioned policy making, strategic planning and legislation [17,20,27,30,33,34,39,40].

Financial support: Seven studies addressed financial issues, insurance and economic evaluation [17,20,22,27,35,36,39].

[Table/Fig-4] depicts the summary of study findings on the elements of integrating traditional medicine into primary healthcare.

[Table/Fig-5] displays themes and related codes identified in the reviewed studies.



[Table/Fig-4]: Elements of integrating traditional medicine with the primary health care.

Number	Themes	Codes
1	Communication and collaboration	Professional relationship Mutual respect and trust Common language Protocol for shared care and information exchange References among practitioners Active role of physicians in reference and supervising treatment
2	Patient-centered	Bio-psycho-social approach Patient's expectations and needs Patient-doctor communication Patient's demands Patient's choice Patient's satisfaction
3	Practice	Evidence-based (safety, efficacy, and quality) Appropriate with culture and prominent CAM modality Selective integration Interdisciplinary and non-hierarchical blending of conventional and complementary medicine in all patient management cases Recognition and identification Recording and documentation Intellectual property rights
4	Education and training	Public awareness Integrate CAM training in medical schools (undergraduate and residency) Training for CAM practitioners Education for health workers Mutual learning Standards of accreditation and training for CAM practitioners Standards on education and quality control should be introduced by healthcare policy
5	Policy and plan	Government support National policies in support of TM development Model for service delivery advocacy and strategic planning Involvement of CAM providers at the policy level
6	Financial support	Reimburse all CAM therapies Improve provider participation and planning Health economic evaluation motivating management decisions for IM management Carry out and accomplish institutionalisation strategies Funding and resource allocation Economic evaluation

[Table/Fig-5]: Themes and related codes identified in reviewed studies on integration of traditional medicine and primary healthcare.

TM: Traditional medicine; CAM: Complementary and alternative medicine; IM: Integrative medicine

DISCUSSION

This study systematically reviewed the literature for various elements of integrating traditional medicine into primary healthcare, whereby six elements were found including communication and collaboration,

patient-centeredness, practice, education and training, policy and planning and financial support.

We found communication and collaboration between traditional medicine and modern medicine groups are among the most important elements of integrating traditional medicine into primary healthcare. The interrelationships between professionals are highly conducive to integration [19,20,23,30,34,38]. Garner MJ et al., considered the collaboration between healthcare and complementary medicine providers essential for successful integration, which needs to be pursued by an interested professional [23]. The study by Ben-Arye E et al., described the collaboration between the physician and the providers of complementary medical services as highly important in promoting the health and well-being of children [31]. Gray B et al., highlighted the good and effective relationship between the professionals of the two groups that can result in better efficacy of the integrated medicine [38]. The stronger and more widely these relationships are established at different levels, the better the integration will be [34].

On the other hand, patient-centeredness along with attention to the patient's request and needs at all stages of the integration process is another element that has been mentioned by numerous studies [18,19,21,22,34,38]. For a successful integration, the patient must have the ability to decide on the treatment [18]. In the model presented by Sundberg T et al., in Switzerland, the integrated services are determined according to both the circumstances of each patient and the agreement reached between the therapeutic teams of modern medicine and complementary medicine [22]. The patient-centeredness is one of the effective elements in improving the quality of the integrated clinics [38]. In Chung VCH et al.'s study, patient-centeredness is described as the common goal of modern and traditional therapists [34].

Another element to consider when integrating traditional and complementary medicine into primary healthcare is the type of service. In the United States, the Federation of State Medical Boards has set guidelines for applying the type of complementary medical services, which is a document that involves guidelines for training physicians and providers of complementary medicine [41]. In Sundberg T et al., proposed model, the type of integrated service should be selected from the complementary or conventional medicine services according to the patient's conditions as decided and agreed by the healthcare team members [22]. In the study of Templeman K et al., two models are proposed for the integration of the type of complementary medicine service: a model where experience-based complementary medicine is integrated with the conventional medicine, and a model that builds only on evidence-based complementary medicine [30].

Another issue that should be considered in integrating traditional medicine into primary healthcare is education and training. Increasing the knowledge of primary care professionals concerning complementary medicine is a must in order to have a better integration. The study of van Haselen RA et al., suggests that education on integrated medicine to primary healthcare professionals is a must [19]. Joos S et al., from Germany pointed to education as one of the elements on which insurance agencies should invest in order for better access to integrated medicine [42]. Also, Anastasi JK et al., mentioned that while integrated therapies are being applied by the general public, health service providers are not aware of the bases and resources that provide safe and effective treatments [43].

One of the key elements for integrating traditional medicine with primary healthcare is the policymaking and planning. The White House Commission on Complementary and Alternative Medicine Policy has postulated 10 guidelines for policy formulation as well as policy proposals for integration of complementary medicine [13]. Policymakers should develop policies and methods that help integrate complementary and alternative therapies in the modern medicine [44]. Jong MC et al., described it as imperative to formulate policies concerning the relationship between general practitioners

and providers of complementary medicine and referral between them in order for integration into primary healthcare [33]. Also, Park H-L et al., highlighted the key role played by national policies in integrating and expanding traditional medicine in China, Japan, and South Korea [45]. In Awodele O et al., study, about 70 percent of traditional medicine practitioners believed that it was necessary to have national policies for traditional medicine [46].

Another issue is the financial supporting for the integration of services. In a study by Obijiofor C, it recommends financial support from the government, NGOs, and other stakeholders in the developed countries for integration of traditional medicine into primary healthcare [17]. Thomas KJ et al., considered financial issues as one of the contributors to the integration of complementary medicine into primary healthcare [47]. Joos S et al., proposed increased funding for research, training, and rewarding physicians for access to integrated medicine in the primary healthcare [42].

LIMITATION

A limitation of this study was that the literature search was not performed on all scientific databases. However, major related databases were searched and related records were retrieved. Additionally, several synonyms of keywords were searched to ensure that all potentially eligible records would be identified. Another limitation was restricting the search to the English language, whereby we may have missed studies in other languages.

CONCLUSION

The traditional and complementary medicine should be integrated into primary healthcare gradually through correct policies. Planning and policymaking should involve practitioners of both traditional and conventional medicine. The role of professionals in both fields of medicine is highly important for establishing collaboration between, and providing education to, other stakeholders of the healthcare system. Without this, integration will not be strongly implemented. To accelerate successful integration, types of services must be in line with the community's culture. The services should also be covered by insurance. The goal and outcome of integration are to provide services that are efficient and have the quality necessary to ultimately satisfy the patient.

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REFERENCES

- [1] World Health Organization. WHO traditional medicine strategy: 2014-2023. Geneva: World Health Organization; 2013.
- [2] Payyappallimana U. Role of traditional medicine in primary health care: an overview of perspectives and challenging. *Yokohama Journal of Social Sciences*. 2010;14(6):723-42.
- [3] World Health Organization. WHO traditional medicine strategy 2002-2005. Geneva: World Health Organization; 2002.
- [4] Gerard B, Gemma B, Fredi K. Traditional, complementary and alternative medicine: policy and public health perspectives. London: World Scientific; 2006.
- [5] World Health Organization. National policy on traditional medicine and regulation of herbal medicines: Report of a WHO global survey. Geneva: World Health Organization; 2005.
- [6] World Health Organization. WHO congress on traditional medicine 2008: Beijing declaration. WHO; 2011.
- [7] Agarwal R, Jain P, Ghosh MS, Parihar KS. Importance of primary health care in the society. *Int J Health Sci*. 2017;1(1):6-11.
- [8] Frenkel M, Ben Arye E, Carlson C, Sierpina V. Integrating complementary and alternative medicine into conventional primary care: the patient perspective. *Explore (NY)*. 2008;4(3):178-86.
- [9] Kooreman P, Baars EW. Patients whose GP knows complementary medicine tend to have lower costs and live longer. *Eur J Health Econ*. 2012;13(6):769-76.
- [10] Zhao K, Tian JF, Zhao C, Yuan F, Gao ZY, Li LZ, et al. Effectiveness of integrative medicine therapy on coronary artery disease prognosis: A real-world study. *Chin J Integr Med*. 2016.
- [11] Lin FX, Tian LF, Lei CY, Ding CC, Shi L, Zhang SF. Chinese medicine for outcomes in colorectal cancer patients: A retrospective clinical study. *Chin J Integr Med*. 2017;23(9):648-53.

- [12] Park M, Hunter J, Kwon S. Evaluating integrative medicine acute stroke inpatient care in South Korea. *Health policy (Amsterdam, Netherlands)*. 2018;122(4):373-79.
- [13] Gordon JS. The White House commission on complementary and alternative medicine policy: Final report and next steps. *Altern Ther Health Med*. 2002;8(3):28-31.
- [14] Gribich C. *Qualitative data analysis: An introduction*. 2nd ed. London: Sage; 2012.
- [15] Pope C, Ziebland S, Mays N. Qualitative research in health care: analysing qualitative data. *BMJ*. 2000;320(7227):114.
- [16] Harden A, Garcia J, Oliver S, Rees R, Shepherd J, Brunton G, et al. Applying systematic review methods to studies of people's views: an example from public health research. *J Epidemiol Community Health*. 2004;58(9):794-800.
- [17] Obijiofor C. Integrating African ethnomedicine into primary healthcare: a framework for South-eastern Nigeria. *Advances in Phytomedicine*. 2002;71-79.
- [18] Frenkel MA, Borkan JM. An approach for integrating complementary-alternative medicine into primary care. *Fam Pract*. 2003;20(3):324-32.
- [19] van Haselen RA, Reiber U, Nickel I, Jakob A, Fisher PAG. Providing complementary and alternative medicine in primary care: The primary care workers' perspective. *Complement Ther Med*. 2004;12(1):6-16.
- [20] Kelly M, Hardwick K, Moritz S, Kelner M, Rickhi B, Quan H. Towards integration: Opinions of health policy makers on complementary and alternative medicine. *J Evid Based Integr Med*. 2005;2(2):79-86.
- [21] Ben-Arye E, Frenkel M, Hermoni D. An approach to teaching primary care physicians how to integrate complementary medicine into their daily practices: a pilot study. *J Altern Complement Med*. 2006;12(1):79-83.
- [22] Sundberg T, Halpin J, Warenmark A, Falkenberg T. Towards a model for integrative medicine in Swedish primary care. *BMC Health Serv Res*. 2007;7:107.
- [23] Garner MJ, Birmingham M, Aker P, Moher D, Balon J, Keenan D, et al. Developing integrative primary healthcare delivery: Adding a chiropractor to the team. *Explore (NY)*. 2008;4(1):18-24.
- [24] Ben-Arye E, Frenkel M, Klein A, Scharf M. Attitudes toward integration of complementary and alternative medicine in primary care: perspectives of patients, physicians and complementary practitioners. *Patient Educ Couns*. 2008;70(3):395-402.
- [25] Ben-Arye E, Karkabi K, Karkabi S, Keshet Y, Haddad M, Frenkel M. Attitudes of Arab and Jewish patients toward integration of complementary medicine in primary care clinics in Israel: a cross-cultural study. *Soc Sci Med*. 2009;68(1):177-82.
- [26] Ben-Arye E, Shapira C, Keshet Y, Hogerati I, Karkabi K. Attitudes of Arab-Muslims toward integration of complementary medicine in primary-care clinics in Israel: the Bedouin mystery. *Ethn Health*. 2009;14(4):379-91.
- [27] Joos S, Berthold M, Szecsenyi J. Integration of complementary and alternative medicine in family practices consultations in Germany: Results of a national study. *Revista Internacional de Acupuntura*. 2009;3(3):132-33.
- [28] Wu J, Lu Z, Hayes M, Donovan D, Lore R. Integration of acupuncture into family medicine teaching clinics. *J Altern Complement Med*. 2009;15(9):1015-19.
- [29] Ben-Arye E. The role of dual-trained conventional/complementary physicians as mediators of integration in primary care. *Evid Based Complement Alternat Med*. 2010;7(4):487-91.
- [30] Templeman K, Robinson A. Integrative medicine models in contemporary primary health care. *Complement Ther Med*. 2011;19(2):84-92.
- [31] Ben-Arye E, Traube Z, Schachter L, Haimi M, Levy M, Schiff E, et al. Integrative pediatric care: Parents' attitudes toward communication of physicians and CAM practitioners. *Pediatrics*. 2011;127(1):84-95.
- [32] Ben-Arye E, Lev E, Keshet Y, Schiff E. Integration of herbal medicine in primary care in Israel: A Jewish-Arab cross-cultural perspective. *Evid Based Complement Alternat Med*. 2011;8:e401395.doi: 10.1093/ecam/nep146.
- [33] Jong MC, van de Vijver L, Busch M, Fritsma J, Seldenrijk R. Integration of complementary and alternative medicine in primary care: what do patients want? *Patient Educ Couns*. 2012;89(3):417-22.
- [34] Chung VCH, Ma PHX, Lau CH, Griffiths SM. Developing policy for integrating biomedicine and traditional Chinese medical practice using focus groups and the Delphi technique. *Evid Based Complement Alternat Med*. 2012;11:e149512.doi: 10.1155/2012/149512
- [35] Shuval JT, Gross R, Ashkenazi Y, Schachter L. Integrating CAM and biomedicine in primary care settings: physicians' perspectives on boundaries and boundary work. *Qual Health Res*. 2012;22(10):1317-29.
- [36] Hunter J, Corcoran K, Phelps K, Leeder S. The challenges of establishing an integrative medicine primary care clinic in Sydney, Australia. *J Altern Complement Med*. 2012;18(11):1008-13.
- [37] Owolabi OO, Glenton C, Lewin S, Pakenham-Walsh N. Stakeholder views on the incorporation of traditional birth attendants into the formal health systems of low-and middle-income countries: A qualitative analysis of the HIFA2015 and CHIL2015 email discussion forums. *BMC Pregnancy Childbirth*. 2014;14(1):9. doi: 10.1186/1471-2393-14-118
- [38] Gray B, Orrock P. Investigation into factors influencing roles, relationships, and referrals in integrative medicine. *J Altern Complement Med*. 2014;20(5):342-46.
- [39] Habtom GK. Integrating traditional medical practice with primary healthcare system in Eritrea. *J Complement Integr Med*. 2015;12(1):71-87.
- [40] McGuire C, Gabison J, Kligler B. Facilitators and barriers to the integration of mind-body medicine into primary care. *J Altern Complement Med*. 2016;22(6):437-42.
- [41] Model guidelines for the use of complementary and alternative therapies in medical practice. *Altern Ther Health Med*. 2002;8(4):44-47; Available from: <https://www.ncbi.nlm.nih.gov/books/NBK83798/>
- [42] Joos S, Musselmann B, Miksch A, Rosemann T, Szecsenyi J. The role of complementary and alternative medicine (CAM) in Germany—A focus group study of GPs. *BMC Health Serv Res*. 2008;8(1):127.
- [43] Anastasi JK, Capili B, Schenkman F. Developing an integrative therapies in primary care program. *Nurse Educ*. 2009;34(6):271-75.
- [44] Hunt K, Coelho H, Wider B, Perry R, Hung S, Terry R, et al. Complementary and alternative medicine use in England: Results from a national survey. *Int J Clin Pract*. 2010;64(11):1496-502.
- [45] Park HL, Lee HS, Shin BC, Liu JP, Shang Q, Yamashita H, et al. Traditional medicine in China, Korea, and Japan: A brief introduction and comparison. *Evid Based Complement Alternat Med*. 2012;9. doi: 10.1155/2012/429103
- [46] Awodele O, Amagon KI, Wannang NN, Aguiyi JC. Traditional medicine policy and regulation in Nigeria: an index of herbal medicine safety. *Current Drug Safety*. 2014;9(1):16-22.
- [47] Thomas KJ, Coleman P, Weatherley-Jones E, Luff D. Developing integrated CAM services in Primary Care Organisations. *Complement Ther Med*. 2003;11(4):261-67.

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APPENDIX 1

Integr* OR collabor* OR converg* OR incorpor* OR inclu* OR cooper* OR contribut* OR blend* OR merg* OR assimilat*
AND
Tradition* OR complement* OR alternat* OR home OR Primitive OR indigenous OR folk* OR ethno*
AND
medic* OR therap* OR remed* OR heal* OR treat* OR cure*
AND
Primary health care OR primary healthcare OR primary care OR PHC

Integr* OR collabor* OR converg* OR incorpor* OR inclu* OR cooper* OR contribut* OR blend* OR merg* OR assimilat*
AND
(traditional medicine [MeSH Terms]) OR (complementary therapies [MeSH Terms]) OR (integrative medicine[MeSH Terms])
AND
primary health care [MeSH Terms]

"Medicine, East Asian Traditional"[Mesh] OR "Medicine, Korean Traditional"[Mesh] OR "Medicine, Tibetan Traditional"[Mesh] OR "Medicine, Mongolian Traditional"[Mesh] OR "Medicine, African Traditional"[Mesh] OR "Medicine, Chinese Traditional"[Mesh]
AND
primary health care [MeSH Terms]

traditional medicine [Title] OR home remed*[Title] OR primitive medicine[Title] OR indigenous medicine[Title] OR folk remed* [Title] OR ethnomedicine [Title] OR complementary therap* [Title] OR complementary medicine [Title] OR alternative medicine [Title] OR alternative therap* [Title]
AND
Primary health care [Title] OR primary healthcare [Title] OR primary care[Title] OR PHC [Title]