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Developing an Evaluation Tool for the Urban Family Medicine Program of the Iranian Health System

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ABSTRACT

Objectives: This research aimed to develop an evaluation tool for the urban family medicine program of the Iranian health system.

Methods: This was a mixed-methods study. Following the literature review, a qualitative study was conducted through interviews with experts, executives, and presenters. Subsequently, the indicators derived from the literature review and qualitative study were merged, and the Delphi questionnaire (initial tool) was designed. The tool items were sent to 30 experts based on two criteria: Importance and executability. The evaluation tool was validated after two rounds of Delphi. In addition, index weights were calculated for the selected indicators, and index profiles were compiled.

Results: A total of 103 indicators were obtained from the literature review (23 structural, 57 process, and 23 output indicators). From the interview sessions, 17 indicators were derived (11 outcome indicators, 5 process indicators, and 1 structural index). The initial tool was created by merging the listed indicators from the literature review and qualitative sessions, followed by two rounds of Delphi with eight dimensions (service delivery, human resources, maternity and drug facilities, information systems, financial resources, community participation, and partnership) and 70 final indicators.

Conclusion: A precise and comprehensive evaluation of the family medicine program, based on the Donabedian model's three domains of structure, process, and outcomes, enabled the identification of strengths, problems, and systemic challenges. This paves the way for improving the service quality and customer satisfaction.

Keywords: Family practice, health status indicators, primary health care, program evaluation

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INTRODUCTION

The history of family medicine traces back to the period following World War II (World War II).[1] It was during this time that America recognized the board of family medicine in 1969, addressing the rise of various medical specialties and the marginalization of general medicine.

In Iran, the initial steps toward health system reforms included the establishment of health cooperatives in the latter half of 1999 in collaboration with the Ministry of Cooperation.[2] In addition, the comprehensive Tabriz network project was initiated in East Azerbaijan province in 2001. The project was validated by the Director-General of the World Health Organization (WHO) and senior experts from the Ministry of Health, Treatment, and Medical Education. By 2006, the family medicine program was implemented for villages and cities with populations under 20,000.

In 2011, urban family medicine commenced in two provinces, Mazandaran and Fars, under the title of Family Medicine version 02.[3] However, in East Azerbaijan province, urban fam-

ily medicine began with the opening of health complexes in Tabriz in 2015, aiming for universal health coverage—complete population coverage, a comprehensive service package, and reduced out-of-pocket payments. A key feature of this program is the comprehensive management of health, regional health management by health complexes utilizing all capabilities (governmental and non-governmental), and shifting the focus of the University of Medical Sciences from providing services to ensuring the delivery of desirable services. This shift increases responsibility and responsiveness to the populace based on service packages and the continuous, comprehensive improvement of health service quality processes. The family medicine approach aims to enhance households' access to a defined service package at a reasonable cost through trained and motivated systems, ensuring high-quality, continuous, and comprehensive primary care for individuals and families of all ages and genders.[4-8] Given these factors, meticulous implementation of family medicine programs in urban areas is deemed essential for the health system. Identifying the shortcomings of the program requires a thorough examination of its dimensions and an evaluation of its execution. Undoubtedly, pinpointing challenges and issues is impossible without an appropriate tool.

This study aimed to develop an evaluation tool for an urban family medicine program in Iran's health system.

METHOD

This study employed a mixed methods approach. Initially, the evaluation method for the family medicine program (evaluation method, indicators used, evaluation timing, feedback provision, and potential problem correction) was determined in various countries using a narrative review method. The data from this stage were collected from diverse databases. English language databases, including PubMed, Scopus, Google Scholar, and Persian language databases, including IranDoc, IranMedex, SID, and MagIran. The initial search keywords were family medicine, family physician, family doctor, Family Practice, referral system, urban, city, metropolises, assessment, evaluation, monitoring, indicator, index, control, implementation, instrument, tool, checklist, dimensions, and their Persian equivalents on the domestic websites. Selecting and screening evidence from different sources is shown in Figure 1.

The primary research question was, "What are the evaluation indicators of the family medicine program in various countries?" A manual search of journals, selected articles, organizational reports, published government documents, websites, and other accessible sources of information was

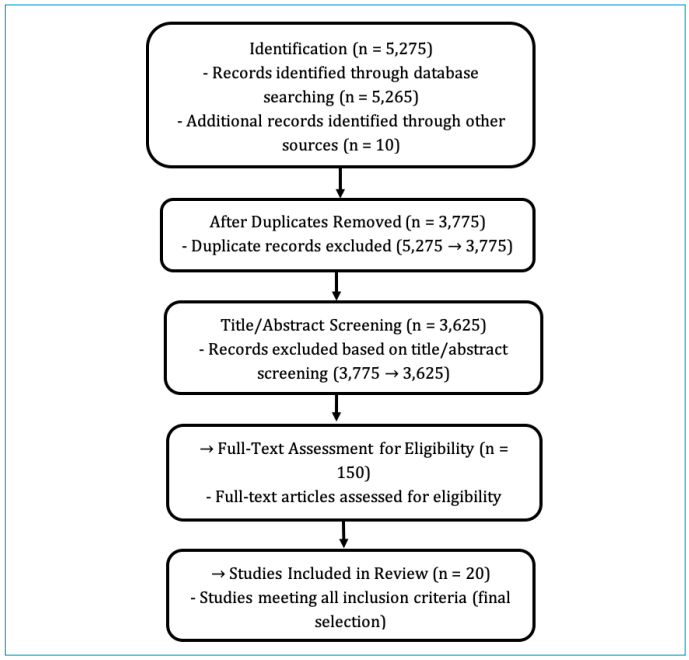

Figure 1. Selecting and screening evidence from different sources.

conducted. The inclusion criteria for articles and reports were the presence of evidence based on evaluation indicators, as well as monitoring and oversight of the family medicine program. Articles in languages other than Persian and English were excluded. Following the search, the selected articles were thoroughly reviewed, and pertinent information was extracted in the extensive review section using a specially designed data extraction form. Subsequently, a qualitative study was conducted to fulfill the first objective. At this juncture, data were gathered from experts and stakeholders who met the criteria for participation in the study. These individuals, with a minimum of 5 years of experience, included managers, deputies, and faculty members from Tabriz University of Medical Sciences, as well as experts from the family medicine program in cities across the East Azerbaijan Province where the program was implemented. A purposive sampling method was employed, whereby the researcher selected participants who could best address the study questions and contribute to achieving the research objectives based on the utility of the samples. The interview sessions were conducted by selecting the participants. At the end of each session, data were analyzed using both manual and in-content analysis approaches. To develop an evaluation tool for the family medicine program, indicators derived from a review of texts from various countries and a qualitative study within the province were consolidated. Duplicate cases were removed and similar instances were categorized under the titles most frequently referenced in the evidence gathered. Subsequently, the Delphi questionnaire was formulated.

The questionnaire was distributed to 30 stakeholders meeting the study's entry criteria (university faculty members, health managers, and deputies with a minimum of 5 years of experience in university health and treatment networks, and family medicine program experts from implementing cities), based on two criteria: Importance and executability.

The response process entailed evaluating each index on a 9-point scale for "importance" and "executability." It was imperative for the expert to assign a score from 1 to 9 for each indicator. "Importance" referred to the necessity of including each item in the final tool, while "executability" denoted the feasibility of implementing and measuring the item under the current conditions of our country. The final acceptance of each index required a minimum score of seven in both dimensions. In addition, a section titled "place for recording opinions" was included at the end of the questionnaire for experts to note any additional insights. In the first Delphi round, out of the 80 indicators synthesized from the first and second objectives, five were immediately discarded due to low scores, and 14 were reassessed in the second round, resulting in the elimination of another five indicators scoring below 7. Ultimately, 70 indicators were selected, each scoring above seven in both rounds. An index identity card was created for all indicators obtained. For the analysis of the data obtained from the expert evaluations, descriptive statistics methods were used. Specifically, the mean, median, standard deviation, and range were calculated for each index in both dimensions (importance and executability) to summarize the distribution of expert ratings. These measures were used to provide an overview of how experts rated each indicator.

RESULTS

Evaluation indicators identified in the literature review were systematically classified into three domains – structural, process, and outcome indicators – to ensure comprehensive assessment. Structural/process indicators and results obtained from the literature review are summarized in Table 1.

To gather expert opinions on the evaluation of the urban family medicine program, interview sessions were conducted with the target group. The age of participants was normally distributed, with a mean of 46.0±5.2 years, while work experience in primary health care showed a non-normal distribution, reported as a median of 20.0 (5.0–30.0) years. All participants held postgraduate degrees in medical sciences, including medicine, health, and healthcare services management.

The study participants identified evaluation indicators for the program across three domains: Input, process, and output. The output indicators were further categorized into three subdomains: Quality, equity, and performance indicators. The main topics and subtopics of the dimensions and evaluation indicators of the urban family medicine program are summarized in Table 2.

By integrating appropriate dimensions and indicators, and after two rounds of Delphi, the final indicators were selected. The weight of each index was calculated based on the opinions of experts and an index certificate was prepared for each selected indicator. Indicators obtained from the Delphi study are summarized in Table 3.

DISCUSSION

According to the WHO, the Donabedian model is recognized as a suitable framework for evaluating healthcare services.[9] This model emphasizes three core areas: Structure, process, and outcome. The structure encompasses resources, such as equipment and human resources utilized in service production and delivery. This process involves actions that lead to the successful utilization of resources to produce effective services. Outcomes included anticipated results, such as patient satisfaction, treatment, and disease management.

This study categorizes program evaluation indicators into three fields: Input, process, and output. Input indicators pertain to the health team members' level of knowledge and skills, while process indicators cover the volume of necessary referrals, reverse referrals from Level 2, family doctors' retention, swift and easy access to services during waiting periods, and specialists' collaboration in care. Output indicators focus on quality, encompassing the satisfaction level of the population served, acceptance of family doctors among the populace, and in terms of equity, the extent of families' exposure to crippling costs, direct out-of-pocket payments, and in the functional domain, life expectancy indicators, birth rates, under-five mortality rates, maternal mortality index, actual service coverage, service utilization rates, and quality-adjusted life expectancy.[10]

The WHO's 2014 report, titled "Conceptual and Strategic Approach to the Family Medicine Program" states that individuals should recognize the benefits of timely healthcare services via the family medicine approach.[11] This includes high-quality care without extensive wait times, referral and follow-up mechanisms, access to necessary service packages and medications without financial burdens at the point of service, and comprehensive, effective care accessible to the entire population. Healthcare services should fulfill the

Table 1. Structural/process indicators and results obtained from literature review

No	Indicators	
1.	Structural	Percentage of PHC centers with evidence of cooperation with other sectors (holding meetings, joint projects, etc.)
	Processes	Percentage of the population under coverage registered in the health center
	Output	The ratio of reported patients to PHC each month who are managed due to mental health conditions
2.	Structural	Percentage of essential CVD and diabetes mellitus drugs without inventory in the past 3 months
	Processes	Percentage of health center employees who have been vaccinated against Hepatitis B process (3 doses)
	Output	The percentage of patients with high blood pressure with initial laboratory examinations
3.	Structural	Percentage of PHC centers with a standard list of essential drugs available
	Processes	Percentage of prescriptions that include antibiotics in outpatient clinics
	Output	The percentage of registered patients with a 10-year cardiovascular risk in the past year
4.	Structural	Percentage of PHC centers with a shortage of any items of essential drugs for the past 3 months
	Processes	Percentage of correct referrals (upward) in the past 6 months (under special conditions)
	Output	The percentage of 5-year-old children screened for anemia
5.	Structural	Percentage of PHC centers with clear and written instructions/strategy for payment costs
	Processes	Percentage of healthy injections in the health care center
	Output	The level of staff satisfaction
6.	Structural	Percentage of PHC centers with easy access to essential basic technology and equipment
	Processes	Percentage of employees who have attended continuous training on quality, safety, and patient health in the past year.
	Output	The number of adverse events reported (vaccination/drug prescription)
7.	Structural	Percentage of PHC centers with minimum personnel standards (at least one standard model is followed in PHC centers)
	Processes	Percentage of registered patients with a blood pressure higher than 149 mmHg in the past 2 follow-up visits
	Output	The percentage of children under 24 months vaccinated according to the national protocol
8.	Structural	Job descriptions are updated periodically and are accessible to all health team personnel.
	Processes	Average waiting time in outpatient clinics
	Output	The percentage of pregnant women who have been fully vaccinated against tetanus (lockjaw)
9.	Structural	Percentage of personnel in PHC centers who have received their updated job descriptions
	Processes	Percentage of registered diabetic patients with controlled fasting blood sugar in the past 2 status visits
	Output	The level of patient satisfaction
10.	Structural	Number of in-service training programs organized for employees in the past 6 months per job category (general practitioner, nurse, and others)
	Processes	Percentage of injections that were performed with new sterilized standard healthy syringes
	Output	The percentage of patients aware of patient rights and responsibilities
11.	Structural	Availability of updated clinical guidelines and their access to all employees at the PHC level
	Processes	Compliance with HH guidelines
	Output	The percentage of diabetic patients with HbA1C (Hemoglobin A1C) <7%
12.	Structural	Percentage of prescriptions and laboratory investigations that are in line with national clinical guidelines
	Processes	Percentage of patients with high blood pressure registered in the past visit
	Output	The percentage of hospital feedback received in referred cases
13.	Structural	Percentage of PHC centers with tools, equipment, and guidelines to support referrals
	Processes	Percentage of pregnant women's first visit in the first trimester of pregnancy
	Output	The percentage of referred patients who were satisfied with the referral (availability of essential services, staff behavior, and low cost)
14.	Structural	Percentage of PHC centers with trained health volunteers as active partners in service delivery
	Processes	Percentage of smokers present in smoking cessation counseling
	Output	The percentage of children aged 1–2 years who have received full vaccination
15.	Structural	Percentage of PHC centers actively working with youth or women's groups
	Processes	Percentage of patients with Type 2 Diabetes Mellitus who have had a fundus eye examination in the past 12 months

Table 1. Structural/process indicators and results obtained from literature review (Cont.)

No	Indicators	
	Output	The percentage of individual coverage of the self-care program
16.	Structural	Percentage of PHC centers that have established a "community-based committee" that helps to manage the PHC center
	Processes	Percentage of pregnant women receiving at least 4times ANC visits
	Output	The number of side effects reported (immunization/drug)
17.	Structural	Percentage of PHC centers that cooperate with non-governmental organizations (NGOs) or other local representatives
	Processes	Percentage of pregnant women who have seen health education (nutritional care, symptoms of anemia, observance of health principles, and symptoms of high-risk pregnancy)
	Output	The percentage of children under 23 months immunized according to the national protocol
18.	Structural	Number of days of drug shortage per year for 2 essential drugs defined in the health center
	Processes	Percentage of children under 5 years old who have had their weight and height measured in the past year
	Output	The percentage of diabetic individuals with HbA1C <7%
19.	Structural	Percentage of PHC centers with clear laws, regulations, and instructions for service costs
	Processes	Defined and completed population under coverage and family / individual file
	Output	The percentage of pregnant women who received at least 6 times ANC
20.	Structural	Percentage of visitors who receive PHC services without financial hardship
	Processes	Average percentage of registered families in PHC centers
	Output	The percentage of children under 5 years whose weight and height have been measured in the past year
21.	Structural	Percentage of PHC centers contracted with agencies/health insurance companies
	Processes	Average percentage of current family / individual files available in PHC centers
	Output	The percentage of newborns who are exclusively breastfed in the first 6 months
22.	Structural	Percentage of the covered population who have had at least one basic visit
	Processes	Percentage of visitors to the PHC center who are outside the defined list of doctors
	Output	The level of employee satisfaction
23.	Structural	Percentage of 13 essential drugs for non-communicable diseases without stock in the past 3 months (heart and vascular, diabetes, high blood pressure, and COPD)
	Processes	Average number of people under the visit list for each of the doctors
	Output	The percentage of appropriate referrals (upward) in the past 6 months (with specific conditions) with appropriate feedback
24.	Processes	Percentage of referrals from each PHC center out of total daily visits in each center
25.	Processes	Percentage of places and PHC centers with integrated emergency readiness and response intervention
26.	Processes	Percentage of employees at the PHC level who have been trained to provide EHSP services with defined responsibilities and duties
27.	Processes	Percentage of PHC centers that store, register, and report drugs safely and securely on a monthly basis
28.	Processes	Percentage of visitors who comply with family medical regulations and regulations
29.	Processes	Percentage of PHC centers that collect, match, and report health information on a monthly basis
30.	Processes	Percentage of PHC centers that use health information is analyzed for better and informed decision-making
31.	Processes	Percentage of mothers who have given birth in the past 6 months and have received at least 4 prenatal care
32.	Processes	Percentage of registered patients with diabetes who have full research and examinations in their files
33.	Processes	Percentage of patients with mental disorders who have had a follow-up visit according to a specific time according to the national protocol
34.	Processes	Percentage of pregnant women with the first visit in the first trimester
35.	Processes	Percentage of the population, aged 30–59, with overweight and obesity who have received counseling services for behavior change
36.	Processes	Percentage of smokers, 18 years and older, who receive smoking cessation counseling
37.	Processes	Percentage of students aged 6–14 who have been treated with fluoride
38.	Processes	Percentage of people with COPD who have had a follow-up visit and treatment in the past year
39.	Processes	Percentage of health center employees who have been immunized for Hepatitis B (3 doses)

Table 1. Structural/process indicators and results obtained from literature review (Cont.)

No	Indicators	
40.	Processes	Percentage of safe injections in health and treatment centers
41.	Processes	Percentage of employees who have seen continuous training on patient quality and safety during the past year.
42.	Processes	Percentage of compliance with hand hygiene guidelines
43.	Processes	Percentage of patients with high blood pressure with initial laboratory examinations
44.	Processes	Percentage of patients with high blood pressure registered with BP <140/90 in the past 2 follow-up visits
45.	Processes	Percentage of registered diabetic patients with fasting blood sugar controlled in 2 follow-up visits
46.	Processes	Percentage of registered NCD patients aged 30 and over with a 10-year cardiovascular risk recorded in the past year
47.	Processes	Percentage of children aged 6–9 months who are tested for anemia
48.	Processes	Percentage of women who have had at least one postpartum care in the first 6 weeks
49.	Processes	Percentage of people who work in a workshop under 20 years old and have been basic visits and occupational care in the past years
50.	Processes	Percentage of the population aged 30 and over, with diabetes who have performed the following examinations: Hemoglobin A1c (HbA1c)/Examination: Eye examination / Foot examination / Blood pressure measurement
51.	Processes	Percentage of the population aged 20 years and older with depression who have undergone the following assessments: • Active follow-up • Risk assessment for non-communicable diseases • Evaluation of drug side effects
52.	Processes	Percentage of pregnant women who have seen health education about: Nutritional care/Anemia/Health service/ High-risk pregnancy symptoms
53.	Processes	Performing TB screening in high-risk groups
54.	Processes	Women aged 30–59 who have had at least 1 Pap test in the past 5 years
55.	Processes	Percentage of risk factors for AIDS in the population under coverage
56.	Processes	Percentage of microbial water sampling according to the standard
57.	Processes	Percentage of registered patients in NCD with blood pressure recorded twice in the past follow-up visit

ANC: Antenatal care; COPD: Choronic obstructive pulmonari disease; CVD: Cardiovascular disease; EHSP: Essential health services package; NCD: Non communicable disease; PHC: Primary health care; TB: Tuberculosis.

Table 2. The main topics and subtopics of the dimensions and evaluation indicators of the urban family medicine program

Dimensions and evaluation indicators	Input	The level of knowledge and skill of health team members
	Process	The amount of necessary referrals
		Rate of reverse referrals from level 2 to level 1
		The retention rate of family doctors
		Ease and speed of access to services (waiting time perspective)
		The level of cooperation of specialists in care
	Output	Quality:
		The level of satisfaction of the covered population
		The level of acceptance of family doctors among the population.
		Justice:
		The extent to which families are exposed to catastrophic payment
		The amount of direct out-of-pocket payments
		Performance:
		Life expectancy
		Birth rate
		Death rate under 5 years
		Maternal mortality rate
		Actual coverage of services, rate of people using services
		Life expectancy adjusted by quality

Table 3. Indicators obtained from the Delphi study

Area	Indicator	Weight of Indicator
Health care status	Death rate of children under 1 year old	0.72
	Birth rate	0.63
	Mortality rate of children under 5 years old	0.63
	Percentage of mothers with ≥4 antenatal care visits during pregnancy (past 6 months)	0.72
	Percentage of children aged 12–23 months with full immunization	0.72
Service delivery	The percentage of implementation of EHSP components (essential health services package)	0.63
	The percentage of executive centers that have implemented the last revision of the service package	0.63
	Percentage of implementing centers that have the latest revision of the service package	0.63
	Percentage of hospital feedback received in referred cases	0.63
	Average waiting time in outpatient clinics	0.63
	Percentage of correct referrals (upward) during the past 6 months (under certain conditions)	0.63
	The percentage of referred patients who were satisfied with the referral (availability of essential services, staff behavior, and low cost)	0.72
	Percentage of centers with tools, equipment, and guidelines to support referrals	0.72
	Percentage of injections performed with new sterilized standard healthy syringes	0.72
	The average number of people under the visit list of each doctor to implement the EHSP plan	0.63
	The percentage of guideline/treatment protocol based on standardized disease definitions	0.63
	Percentage of implementing centers that have access to treatment guidelines/protocols based on standardized diagnostic definitions	0.63
	The percentage of implementing centers that implemented standardized treatment guidelines/ protocols based on diagnostic definitions	0.63
	Availability of updated clinical guidelines and its accessibility to all staff at the urban family physician level	0.63
	The percentage of executive centers where population and household division is done	0.63
	The percentage of executive centers with a map of the region	0.72
	The percentage of centers where the prevalence of diseases and deaths have been determined	0.72
	Percentage of PHC facilities where the population covered is defined	0.72
	The average percentage of families registered in PHC centers	0.63
	Percentage of program implementation centers with the quality assessment system	0.63
	Percentage compliance with HH guidelines	0.63
	The percentage of employees who participated in continuous training about quality, safety, and patient health during the past year	0.72
	The percentage of safe injections in the health care center	0.63
	Percentage of health center employees who were vaccinated against hepatitis B (3 doses)	0.72
	The percentage of prescriptions and laboratory investigations that are in line with national clinical guidelines	0.63
Human resources	Percentage of executive centers with minimum personnel standards (at least one standard model is followed in executive centers)	0.72
	Percentage of PHC-level staff trained to provide EHSP services with assigned responsibilities and duties	0.72
	The number of in-service training programs for employees organized during the past 6 months per job category (general practitioner, nurse, and others)	0.63
	The percentage of employees determined based on the covered population	0.72
	The percentage of employees who are determined based on the EHSP	0.72
	The percentage of personnel in executive centers who have received their updated job descriptions	0.63
	The percentage of centers where job descriptions are periodically updated and accessible to all executive-level personnel	0.63

Table 3. Indicators obtained from the Delphi study (Cont.)

Area	Indicator	Weight of Indicator
Facilities, equipment, and medicine	Percentage of implementing centers with the available standard list of essential drugs	0.63
	The percentage of primary health care facilities and centers managed by a family physician specialist	0.72
	The percentage of primary health care facilities and centers that have been visited at least twice in the past 6 months	0.63
	Percentage of primary health care facilities where service delivery is based on a family medicine approach	0.63
	The percentage of family medical infrastructure centers	0.63
	Percentage of centers with a standard list of equipment	0.72
	Percentage of centers with the standard list based on EHSP	0.63
	The percentage of centers that have equipment is based on the standard list of equipment	0.63
	The percentage of supply of essential drugs based on the essential service package	0.63
	Percentage of centers with essential drugs	0.63
	Percentage of centers with a list of essential drugs	0.63
	Percentage of PHC facilities and centers with integrated emergency preparedness and response intervention	0.63
	Percentage of essential CVD drugs and diabetes mellitus without inventory in the past 3 months	0.63
	Number of drug shortage days per year for 2 essential drugs defined in the health center	0.72
	Percentage of executive centers with shortages of each item of essential drugs for the past 3 months	0.72
	The percentage of implementing centers that store, register, and report medicines safely and regularly on a monthly basis	0.72
Information system	Percentages of centers that collect, reconcile, and report health information on a monthly basis	0.63
	The average percentage of current cases of families/individuals in PHC centers	0.72
	Percentage of centers that use analyzed health information to make better and informed decisions	0.63
	Percentage of centers with information feedback	0.63
	The percentage of registered patients of neurological and mental patients who have complete investigations and tests in their files	0.72
	The percentage of registered patients with high blood pressure who have complete investigations and tests in their files	0.63
	The percentage of registered patients with diabetes who have complete investigations and tests in their records	0.72
Financial resources	Percentage of PHC centers with clear rules and regulations and guidelines for service charges	0.63
	Percentage of clients who receive PHC services without financial hardship	0.63
	The percentage of centers that have been allocated credit for the family medicine program	0.63
	The percentage of centers where resources have been allocated for equipment maintenance	0.63
	Percentage of PHC centers with contracts with health insurance agents/companies	0.72
	Percentage of implementing centers with clear, written guidelines/strategy for payment fees	0.63
Community participation	Percentage of centers with trained health volunteers as active partners in service delivery	0.63
	Percentage of centers with active work in connection with youth groups or women	0.63
	The percentage of clients who follow family medicine rules and regulations	0.63
Partnership	Percentage of centers that cooperate with NGOs or other local representatives	0.63
	Percentage of PHC centers with evidence of cooperation with other sectors of society (holding meetings, joint projects, etc.)	0.63

CVD: Cardiovascular disease; EHSP: Essential health services package; HH: Hand hygiene; NGO: Non-governmental organization; PHC: Primary health care.

criteria of accessibility, financial feasibility, collectability, comprehensive quality, effectiveness, non-discrimination, and age appropriateness. The indicators identified in this tool align with many global health indicators.

Eskandarizadeh and Dehnavieh's study, by the title of "Assessment of Primary Healthcare System in Areas Covered by Family Physician Project in Southeastern Iran," assessed the program across access, care comprehensiveness, coor-

dination, and continuity.[12] Many of these aspects are also mentioned in our study's evaluation tool.

The study by Jahromi et al. utilized the urban family doctor program, employing primary care tools that prioritize providing care as the main feature.[13] Secondary features included access to services, continuity of care, coordination of care, and comprehensiveness of care. Assessment dimensions encompass geographical, cultural, and organizational access; financial access; continuity of information; longitudinal continuity; interpersonal continuity; and cooperation between different levels of care. Additional evaluation indicators such as medical equipment, service delivery, patient visits, activity hours, holiday and after-hours activities, non-therapeutic home visits, service payments, distance to provider centers, cultural characteristics, computer and software usage, medical information storage, information utilization and analysis, annual visits, duration of patient-provider relationship, referral system, disease management, treatment procedures, and technical skills for consultation and communication with specialists were selected and evaluated. It appears that the indicators and areas mentioned in this study overlap with those of the present study.

A review of studies in this field indicates that before the current study, the primary care evaluation questionnaire designed by the WHO and the Netherlands Institute for Health Services Research was used to assess the urban family doctor program.[14-18] This tool, which is less comprehensive than the one designed in this study, measures only four areas: Access to services, continuity of care, coordination of care, and comprehensiveness of care. The newly designed tool encompasses eight areas: Healthcare status, service delivery, facilities and medicine, information system, financial resources, community participation, partnership, and indicators related to each area. It can be asserted that this tool is inspired by the primary framework of health care governance and possesses sufficient sensitivity to reflect the actual state of the urban family doctor program's implementation. Donabedian's model for assessing quality in health care.[19] Its breadth allows for a more nuanced evaluation compared to existing tools, which often focus narrowly on service delivery and overlook governance, community engagement, or resource adequacy.[20,21] Given the multidimensional nature of primary health care in urban settings – especially in contexts, such as Iran, where rapid urbanization and health transitions are ongoing – such a holistic evaluation framework is essential for guiding policy adjustments and strengthening health system responsiveness.[22] Thus, the current tool offers a promising foundation for continuous monitoring and quality improvement within the urban family medicine program.

CONCLUSION

Effective implementation of the urban family medicine program will enhance societal health levels, achievable through accurate assessment across various domains. Evaluating the urban family medicine program is essential, necessitating indicators related to healthcare status, service delivery, human resources, facilities, equipment, medicine, information systems, financial resources, community participation, and partnership. The significance and feasibility of the index underscores the importance of all pertinent fields and indicators.

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