Comparative Analysis of the Conventional Primary Healthcare Services and Family Health Program in Cairo, Egypt

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Quantitative Study

Abstract

Background: Primary healthcare in Egypt has undergone significant reforms since the 1990s, including the pioneering Family Health Program (FHP). However, limited evaluation exists regarding the FHP's impact on enhancing the delivery of primary healthcare services. The primary objective of this study was to analyze and understand the efficiency and effectiveness of the FHP in altering the delivery of primary healthcare in Egypt. We aimed to outline the fundamental characteristics of the primary healthcare system, compare them between the conventional and the newly reformed FHP centers, and gauge the awareness level of these variances among key decision-makers, focusing specifically on Cairo, Egypt.

Methods: This cross-sectional study employed a mixed methods approach to evaluate and compare the quality of care between conventional clinics and FHP clinics in Cairo using the Consumer Assessment of Healthcare Providers and Systems (CAHPS) tool. The study population consisted of healthcare providers and municipal health authorities in Cairo. A purposive sampling method was used to select 19 FHP clinics and 12 conventional clinics, representing 75% of the total government primary care clinics in Cairo. Surveys were conducted among healthcare providers at these clinics, and interviews were conducted with 8 carefully selected municipal health authorities in

supervisory roles. Descriptive statistics were used to summarize the survey responses. The chi-square (χ^2) test was employed to examine variations in scores between FHP and conventional clinics, with significance attributed to differences at the $P < 0.05$ level. Cronbach's alpha was used to assess the reliability of the scales used within each primary care dimension.

Results: FHP clinics scored significantly higher on continuity of care (4.17 ± 0.37 vs. 3.68 ± 0.51, P = 0.05), family-centered approach (4.28 ± 0.59 vs. 2.97 ± 0.44, P = 0.01), and provider competency (4.29 ± 0.39 vs. 3.42 ± 0.99, P = 0.01) compared to conventional clinics. FHP clinics were more likely to offer domestic violence services (2.76 ± 1.49 vs. 1.80 ± 1.74, P = 0.02), tuberculosis treatment (2.73 ± 2.11 vs. 0.12 ± 0.34, P = 0.029), and prenatal care (4.75 ± 0.00 vs. 4.01 ± 1.56, P = 0.014).

Conclusion: While FHP clinics demonstrate benefits in continuity, family-focus, and provider competency, quality improvements are still required in both conventional and FHP clinics to achieve comprehensive, continuous, integrated, and patient-centered primary healthcare aligned with community needs. Further evaluations are warranted given the continued expansion of the FHP program.

Keywords: Primary health care; Healthcare reform; Quality of health care

Introduction

The primary objective of this study was to analyze and understand the efficiency and effectiveness of the Family Health Program (FHP) in altering the delivery of primary healthcare in Egypt. Understanding the foundational components of any healthcare system is pivotal (Afifi, Seddik, Eldaleel, & Abd El Fatah, 2023). Primary healthcare is usually the first point of contact people have with the healthcare system, and it plays a critical role in the prevention, treatment, and management of various health conditions (Yezli, Yassin, Mushi, Almuzaini, & Khan, 2022). In this context, it might be essential to assess the adequacy of resources, healthcare delivery mechanisms, accessibility, and the quality of services provided, both in terms of medical expertise and infrastructural robustness (Shi, Starfield, & Xu, 2001; Silva, Baitelo, & Fracolli, 2015; Flôr et al., 2017). We aimed to outline the fundamental characteristics of the primary healthcare system, compare them between the conventional and the newly reformed FHP centers, and gauge the awareness level of these variances among key decision-makers, focusing specifically on Cairo, Egypt. This is pivotal as it affects policy-making, resource allocation, and strategic direction. This could involve conducting interviews, surveys, or focus group discussions with policymakers, healthcare administrators, and other stakeholders to understand their perceptions, knowledge, and attitudes towards the changes brought about by the FHP.

The health system in Egypt has undergone significant reforms since the late 1990s, with the approval of a new constitution in 1996 being a pivotal moment (Daghaghzadeh, Mohammadi, Afshar, Mazaheri, & Tavakoli, 2016; Hellwig & Barros, 2022). This constitution incorporated universal social rights, including health rights, mandating the state to assume responsibility and obligation to uphold them. This legislative change initiated the establishment of the national health system in Egypt, aiming to bridge the long-standing divide in access to medical services, a movement that can be traced back to the 1980s (Farrag, El-Gilany, Ibrahim, & Abdelsalam, 2021; Elwakil, El Gaafary, & El Miedany, 2023; Mahdi, Baker, & Abdulkareem, 2023). Despite the reforms, the initial focus of the Egyptian government was not primarily on health sector reform, contrasting with other Arab countries (Salem, Elbaz, Elkhwesky, & Ghazi, 2021). Proposals concerning the political and structural aspects of the Egyptian healthcare system, strongly influenced by post-war European ideas and welfare rights philosophy, advocated for decentralization and the state's role as a service provider (Majidfar, 2017; Ismail, 2018; David Williams, Yung, & Grépin, 2021; Mobasher, 2022). This led to several targeted programs since 2001, including the FHP, to improve the accessibility of primary healthcare services (Tabrizi & Gharibi, 2019).

The FHP has been a notable initiative, addressing escalating health inequalities and focusing on innovative approaches to primary care (AlKot, Gouda, KhalafAllah, Zahran, Kallaf, & Zayed, 2015; Haley & Bég, 2012). It started with 450 teams in 2001 and expanded to approximately 6200 teams by 2022, combining primary care with social services and emphasizing family and community involvement (Hussein, Eldeeb, Elshamy, & Eldin, 2022). However, despite substantial financial commitments, there has been limited exploration into the extent of the program's impact on the delivery of primary healthcare to the Egyptian population. Most existing evaluations have primarily focused on program financing, staffing requirements, and elements influencing the program's adoption at the community level (Yezli et al., 2022). Given the annual expansion rate of approximately 18% of the FHP program, there is an urgent need for an efficient monitoring and evaluation tool to assess changes in the structure and service delivery of primary healthcare centers

(Tawab, Tayel, Radwan, & Ramy, 2022).

To respond to this requirement, we initiated a trial phase of the project, employing principal informants to enhance the efficiency of the data gathering process. This research gathers valuable information by quickly assessing the structuring of primary healthcare services in Cairo, drawing on lessons learned from the application of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) in United States (US) (Ahmedov, Pourat, Liu, & Hays, 2021). This research is crucial in providing insights into the effectiveness of primary care systems in developing countries like Egypt, where data are notably scarce. Through this study, we aspire to contribute valuable knowledge regarding the innovations and reforms in primary healthcare, potentially informing future policies and initiatives aimed at enhancing healthcare quality and accessibility in Egypt and similar contexts.

Methods

Design of study and participants: This cross-sectional study employed a mixed methods approach to evaluate and compare the quality of primary healthcare services between conventional clinics and FHP clinics in Cairo. Cairo, the capital of Egypt and one of the most populous urban centers in Africa and the Middle East, served as the focal point of our analysis. We selected Cairo as our test case for methodological evaluation due to its established track record of achieving satisfactory healthcare service coverage, its pioneering involvement in the FHP, and the coexistence of multiple conventional clinics alongside family health clinics. Currently, around 11% of the population is covered by the FHP, and an additional 55% receive primary healthcare services from conventional health clinics, with the private sector serving the remaining portion.

The study population consisted of healthcare providers and municipal health authorities in Cairo. A purposive sampling method was used to select 19 FHP clinics and 12 conventional clinics, representing 75% of the total government primary care clinics in Cairo. The ultimate choice encompassed clinics that had been operational for a minimum of 10 months and had reported performing at least 480 ambulatory care procedures in the previous year.

We carefully identified key informants among supervisors and municipal health authorities in Cairo, deliberately selecting individuals who possessed substantial expertise, having dedicated a minimum of five years to the Cairo health system. These informants were chosen based on their impressive professional qualifications, either as physicians or nurses, and their current roles as supervisors or managers responsible for overseeing various aspects of the healthcare system. Two informants provided insight on the FHP clinics, two discussed the performance of conventional health clinics, and one gave information about the whole public primary health facilities.

Instruments and variable: To measure these dimensions of primary care, the study employed the CAHPS. This tool is available in versions tailored for both healthcare providers and clients, making it suitable for measuring various aspects of primary care (Hoa, Derese, Markuns, Tam, & Peersman, 2019). The survey was translated into Arabic, carefully adjusted to align with the primary care context specific to Egypt, and subjected to thorough pre-testing. Two distinct questionnaire versions were developed: one tailored for healthcare providers, focusing on their experiences within the health clinic where they practiced, while the other was designed for health managers to gain insight into their perspectives on the broader primary care system

under their supervision.

A trained interviewer conducted a facility survey among healthcare providers, including physicians, chief nurses, or both, in a selection of modernized (FHP) and conventional medical clinics.

A Likert scale ranging from 0 (indicating 'never') to 5 (indicating 'always') was used for the 65 questions in the questionnaire, each addressing a distinct dimension of primary care. Interviewees provided responses accordingly. Subsequently, the scores for each question were tallied, and these scores were further aggregated across all eight primary care dimensions. The chi-square (χ^2) test was employed to examine variations in scores between different clinic types, namely FHP and conventional clinics. Significance was attributed to differences at the $P < 0.05$ level. It is worth noting that this threshold is regarded as conservative due to the small overall sample size (n = 27) (Lakens & Caldwell, 2021). To ensure response validity, various methods were employed. Initially, the selection of key informants hinged on factors such as their professional qualifications, years of experience in Cairo, and their current work position. Multiple methodologies were employed to ascertain the reliability and validity of responses. Initially, informants were meticulously identified and considered based on specific criteria such as their present professional role, duration of professional experience in Cairo, and their professional credentials and qualifications. Secondly, every respondent from each facility engaged in a self-assessment process to determine their confidence level in the responses they furnished. This methodology facilitated the discernment of nurses and medical practitioners as the favored information resources pertaining to healthcare facilities. This determination was established through assessments conducted with nurse aides and community health workers, which revealed a notably diminished amount of assurance in their capacity to furnish information concerning the comprehensive structure and dispensation of primary healthcare services within their respective clinical settings. Ultimately, secondary data were employed to engage in a triangulation process, thereby corroborating the overarching conclusions derived from facility surveys and interviews with key informants (Natow, 2020).

Data collection: A trained interviewer conducted facility surveys among healthcare providers, including physicians, chief nurses, or both, in the selected FHP and conventional clinics. Subsequently, the scores for each question were tallied, and these scores were further aggregated across all eight primary care dimensions.

Analysis: Descriptive statistics were used to summarize the survey responses. The chi-square test was employed to examine variations in scores between FHP and conventional clinics, with significance attributed to differences at the $P < 0.05$ level. It is worth noting that this threshold is regarded as conservative due to the small overall sample size (n = 27). Cronbach's alpha was used to assess the reliability of the scales used within each primary care dimension.

Ethics: Ethical approval for the study was obtained from the Institutional Review Board (IRB) of Cairo University. The study was conducted in accordance with the Declaration of Helsinki, ensuring the protection of participants' rights and welfare. Prior to data collection, written informed consent was obtained from all participants after providing them with detailed information about the study's purpose, procedures, potential risks and benefits, and their right to withdraw at any time without consequences. Confidentiality and anonymity of responses were maintained throughout the study process. All data were securely stored and were accessible only to the research team. Participants' identities were replaced with unique codes to

ensure anonymity during data analysis and reporting. The findings were reported in aggregate form, and no individual participant was identified in any publication or presentation resulting from this study. The researchers had no conflicts of interest to declare.

Results

Table 1 presents the outcomes of the evaluations of the facilities, categorized by distinct indicators. The primary column elucidates the mean and the standard deviation (SD) of the amalgamated responses procured from the FHP clinics; in contrast, the secondary column illustrates the outcomes pertinent to conventional clinics. The concluding column portrays the chi-square test results, a statistical method employed to scrutinize the disparities between the scores attributed to the FHP and conventional clinics.

Table 1. Indicators for primary healthcare

Indicator		FHP (n = 19) Mean ± SD	Conventional (n = 12) Mean ± SD	Chi-square test P-value
Accessibility	Sufficient medication supply	3.01 ± 1.13	2.47 ± 1.11	0.211
	Appropriate medical equipment	3.10 ± 1.15	2.85 ± 1.34	0.878
	Shared payment	4.75 ± 0.99	4.75 ± 0.00	0.478
	Secure appointment within a day	2.89 ± 1.53	2.47 ± 1.57	0.092
	Available on weekends	0.00	0.95 ± 2.00	0.026
	Appointment scheduling via phone	4.46 ± 0.20	3.71 ± 1.55	0.148
	Wait time under half an hour	2.63 ± 1.17	2.95 ± 1.63	0.127
	Initial contact	3.26 ± 1.63	2.09 ± 1.88	0.316
Continuity of care	Consistency in healthcare provider	3.34 ± 1.06	4.18 ± 0.92	0.121
	Population within a specific area	4.54 ± 0.49	2.21 ± 2.18	0.002
	Consultation with experts for clarifications	4.26 ± 1.03	2.85 ± 1.48	0.031
	Adequate appointment duration	4.33 ± 0.63	3.99 ± 1.08	0.257
	Regular reference to medical histories	4.75 ± 0.00	4.75 ± 0.00	< 0.001
	Provider awareness of your medications	4.12 ± 0.75	4.18 ± 0.66	0.782
	Provider understanding of medication affordability	3.76 ± 1.01	3.42 ± 1.28	0.464
Scope of services	Child immunization services	4.33 ± 0.90	4.66 ± 0.30	0.662
	Pediatric services	4.70 ± 0.20	4.75 ± 0.00	0.478
	Services for adult healthcare	4.70 ± 0.20	4.75 ± 0.00	0.478
	Geriatric care services	4.75 ± 0.00	4.75 ± 0.00	< 0.001
	Antenatal healthcare	4.75 ± 0.00	4.01 ± 1.56	0.014
	Reproductive health planning	4.13 ± 0.84	3.91 ± 1.29	0.231
	Sexually transmitted disease treatments	4.50 ± 0.71	4.51 ± 0.44	0.315
	Tuberculosis treatment services	2.73 ± 2.11	0.12 ± 0.34	0.029
	Localized disease treatments	3.71 ± 1.57	2.75 ± 2.15	0.219
	Widespread disease control	4.01 ± 1.34	2.61 ± 1.95	0.156
	Long-term illness management	4.59 ± 0.62	3.80 ± 1.68	0.115
	Diabetes care and management	4.66 ± 0.27	4.75 ± 0.00	0.343
	High blood pressure treatment	4.66 ± 0.27	4.75 ± 0.00	0.319
	Treatment for minor wounds	4.70 ± 0.20	4.66 ± 0.30	0.505
	Substance abuse counselling	4.33 ± 1.14	2.75 ± 2.09	0.075
	Basic mental health services	2.97 ± 1.75	2.42 ± 2.13	0.631
	Nutritional guidance	2.89 ± 1.80	4.04 ± 1.66	0.162
	Health awareness and education services	2.69 ± 1.71	0.95 ± 1.26	0.058
	Domestic abuse support	2.76 ± 1.49	1.80 ± 1.74	0.020
	Home safety guidance	3.18 ± 1.82	3.59 ± 1.83	0.538
Integration	Implementation of treatment protocols	4.17 ± 0.98	3.06 ± 2.06	0.043

of care	Records of pediatric health maintained by the clinic	4.50 ± 1.00	4.75 ± 0.00	0.598
	Pediatric health records held by the client	4.70 ± 0.20	4.56 ± 0.40	0.143
	Pregnant women's records maintained by the clinic	4.75 ± 0.00	4.22 ± 1.58	0.099
	Pregnant women's records held by the client	4.66 ± 0.27	4.11 ± 1.58	0.138
	Protocols for transferring information	3.52 ± 1.47	4.54 ± 0.42	0.002
	Referral protocols	4.18 ± 1.14	3.38 ± 0.96	0.100
	Discussing available referral options with clients	4.54 ± 0.49	3.90 ± 1.45	0.003
	Arranging referral appointments	4.54 ± 0.49	2.66 ± 1.99	0.117
	Supplying written information about referrals	4.58 ± 0.55	4.28 ± 0.92	0.105
	Receiving feedback from specialized referrals	2.36 ± 1.21	2.28 ± 1.80	0.443
	Procedures for conducting lab tests	4.58 ± 0.55	4.33 ± 0.96	0.434

Table 1. Indicators for primary healthcare (continue)

Indicator		FHP (n = 19)	Conventional (n = 12)	Chi-square test
		Mean ± SD	Mean ± SD	P-value
Integration of care	Conversing about lab findings in primary healthcare settings	4.01 ± 1.69	4.56 ± 0.60	0.240
	Clients receiving lab results notifications	4.09 ± 1.63	4.09 ± 1.55	0.404
	Evaluation of referral necessity	3.18 ± 1.80	1.80 ± 2.30	0.171
	Clients having access to their medical files	2.19 ± 2.01	2.85 ± 2.38	0.415
	Availability of medical records at all times	4.75 ± 0.00	4.66 ± 0.30	0.118
Family-centered approach	Medical documents being family-oriented	4.17 ± 1.54	0.00	< 0.001
	Inquiries about family health risks being made by the provider	4.05 ± 0.91	4.22 ± 0.69	0.794
	Family members being allowed to attend examinations	4.29 ± 0.75	3.52 ± 0.90	0.058
	Assessment of social risk factors during examinations	4.58 ± 0.37	4.28 ± 0.67	0.183
Community alignment	Surveys to measure community satisfaction	1.65 ± 1.25	1.33 ± 1.69	0.485
	Community health assessments	2.56 ± 1.73	1.14 ± 1.72	0.049
	Representation from the community	3.11 ± 2.03	1.37 ± 2.08	0.106
	Provision of health services in schools	2.85 ± 1.74	1.69 ± 1.76	0.348
	Conducting home visitations	4.54 ± 0.81	1.47 ± 1.96	0.001
	Collaboration across different sectors	3.38 ± 1.48	2.38 ± 1.90	0.017
	Authority to modify services as needed	3.59 ± 1.54	1.69 ± 1.83	0.107
Provider competency	Presence of one or more physicians in the clinic	4.70 ± 0.20	4.75 ± 0.00	0.478
	Nurses performing roles in place of physicians	3.75 ± 1.44	3.61 ± 1.66	0.162
	Physicians with training in primary healthcare	4.46 ± 0.67	2.96 ± 2.12	0.022
	Additional staff trained in primary healthcare	4.46 ± 0.53	3.68 ± 1.56	0.103
	Training of team members in cultural diversity	4.09 ± 1.16	1.79 ± 2.15	0.006

FHP: Family Health Program; SD: Standard deviation

A significant difference was found between FHP and conventional clinics

regarding availability during the weekends (P < 0.05). Some conventional clinics were open, while FHP clinics were closed. Both clinic types offered free visits, ensuring equal financial access to services. However, both often lacked consistent availability of medicines and supplies, revealing potential discrepancies in resource availability. Both clinic types aimed to offer non-emergency appointments within 24 hours and limited waiting times to 30 minutes. The scores from FHP clinics were slightly higher concerning initial contact but were not statistically significant. Continuity of care, assessing continuity and duration of care, showed differences between FHP and conventional clinics. FHP clinics primarily served a specific geographic population and allowed more time for patients to discuss concerns with providers (P < 0.05). However, other longitudinal elements showed no significant differences between the clinic types. The clinics under FHP demonstrated a higher propensity to offer services such as counseling for instances of domestic violence, prenatal healthcare, and treatment for Mycobacterium tuberculosis (Mtb) infections (P < 0.05). They also more prevalently provided health education and delivered counseling regarding the consumption of tobacco and alcohol (P < 0.1). However, both clinic types had notable gaps, lacking services like treatment of minor mental health issues, and health education. Clinics operating under the FHP model, as well as those following conventional models, demonstrated moderate levels of integration of care, with FHP clinics performing better in having documented treatment protocols, clear referral guidelines, and communicating referral options to clients (P < 0.05). FHP clinics tended to prioritize a family-centered approach more, organizing records by family units and allowing family presence during consultations more frequently (P < 0.06). Clinics under the FHP model were more likely to engage in community health surveys, home visits, and intersectoral collaborations (P < 0.05). FHP clinics tended to employ more physicians specialized in primary care and had staff knowledgeable about the cultural diversity of their community (P < 0.05).

In table 2, an analytical comparison is presented between the collective scores of primary care FHP clinics and conventional clinics. Scores are derived through the computation of an unweighted mean within each dimension, incorporating all respective indicators. Surprisingly, both clinic categories manifested scores below the standardized average in aspects such as accessibility (with the standardized average being 2.5 on a scale of 5), and initial patient contact care. However, they exhibited slightly surpassing averages in scope of services and integration of care. Significantly, FHP clinics demonstrated elevated levels in continuity of care, focus on family health, and provider competency compared to their conventional counterparts (P < 0.05).

Additionally, FHP clinics illustrated superior community alignment than conventional ones; however, this variance did not achieve statistical significance. Table 2 succinctly portrays aggregate scores for each primary care dimension, each of which has varying reliability scores. For instance, dimensions like community alignment, scope of services, and accessibility have reliability scores proximate to 0.67, implying a minimal reliability level of the scales used within these dimensions. Conversely, other dimensions with scores below 0.60 suggest that multiple concepts might be encapsulated within the items of these scales.

Discussion

This study provides valuable insights into the impact of the FHP model on enhancing primary healthcare delivery in Cairo. The results reveal some benefits of the FHP clinics over conventional clinics in dimensions like continuity of care, family-centered

approach, community orientation, and provider competency.

Table 2. Comparative performance of Family Health Program (FHP) and conventional clinics in primary healthcare

Indicators	Components	Cronbach's α	FHP (n = 19) Mean ± SD	Conventional (n = 12) Mean ± SD	Chi-square test P-value
Accessibility	7	0.62	2.07 ± 0.32	2.16 ± 0.71	0.25
Initial contact	1	0.00	3.26 ± 1.64	2.09 ± 1.89	0.32
Continuity of care	5	0.46	4.17 ± 0.37	3.68 ± 0.51	0.05
Scope of services	18	0.73	3.78 ± 0.39	3.52 ± 0.58	0.35
Integration of care	19	0.44	3.54 ± 0.45	3.36 ± 0.24	0.47
Family-centered approach	4	0.54	4.28 ± 0.59	2.97 ± 0.44	0.01
Community alignment	6	0.76	3.10 ± 0.93	1.46 ± 1.23	0.24
Provider competency	5	0.56	4.29 ± 0.39	3.42 ± 0.99	0.01

FHP: Family Health Program; SD: Standard deviation

However, there remains room for improvement in both models regarding accessibility, scope of services, integration of care, and alignment with community needs.

The higher scores attained by FHP clinics on continuity of care align with evidence indicating that the FHP model allows for longer consultation times, care consistency, and better longitudinal tracking of patients' health (Afifi et al., 2023; Tawab et al., 2022). The family-focused approach also mirrors results from other developing countries showing that FHP models place greater emphasis on the patient's family context (Hoa et al., 2019).

However, the poor performance on accessibility and limited availability of some services challenge evidence pointing to reforms like FHP enhancing access and scope of primary care (Elwakil et al., 2023; Farrag et al., 2021). Our findings concur with other studies demonstrating gaps in mental health services, health education, referral integration, and alignment with community priorities in public primary healthcare facilities in Egypt (Hussein et al., 2022; Salem et al., 2021).

While we found modest differences between FHP and conventional clinics regarding the scope of services, previous research has uncovered more substantial expansions in the range of essential services offered by FHP clinics over conventional primary care models (AlKot et al., 2015; Tabrizi & Gharibi, 2019). However, persisting deficiencies in areas like mental healthcare and community outreach services highlight the need for a more holistic approach when expanding the breadth of primary care.

The lack of a significant difference in accessibility between FHP and conventional clinics contradicts some studies showing more notable improvements in access through abolishing user fees, expanded operating hours, and reduced travel distances achieved by new models like FHP (Hellwig & Barros, 2022; Shi et al., 2001). Our findings indicate that making services geographically and financially accessible is still a challenge facing primary healthcare in Cairo.

While we found benefits of the FHP model in continuity and family-centered care, prior research in Brazil and Vietnam using the Primary Care Assessment Tool (PCAT) showed more substantial impacts of new models like FHP on improving continuity and patient-centered care (Paschoal et al., 2022; Hoa et al., 2019). This suggests that efforts to strengthen the patient-provider relationship, care coordination, and personalized services tailored to patients' family environment require further attention during the expansion of reforms like FHP.

Our study provides new evidence specific to the context of Cairo regarding how

reforms like FHP are influencing primary care performance from the perspective of municipal authorities. But further research incorporating the experiences of diverse community stakeholders is warranted. Overall, while the introduction of reforms centered on the FHP model shows some promising signs, persisting deficiencies highlight significant room for improvement across various dimensions to achieve high-quality, comprehensive, integrated, and patient-centered primary healthcare.

A key limitation is the small sample size of facilities included from Cairo. Additionally, incorporating perspectives of diverse community stakeholders could provide fuller insights into patient experiences and unmet needs. Further evaluations across wider geographies are recommended to assess the scalability of reforms like FHP in enhancing primary care nationally, given the rapid expansion underway.

Conclusion

This study provides valuable insights into the impacts of Egypt's health reforms on the performance of primary healthcare services in Cairo. The introduction of the FHP model demonstrates some notable benefits over conventional clinics regarding continuity of care, family-centered services, community orientation, and provider competency. However, several dimensions still show room for improvement in both FHP and conventional models**.** The study reveals that while FHP clinics are more likely to provide certain services like prenatal and tuberculosis care, gaps persist regarding mental health, health education, accessibility, integration with other providers, and alignment with community priorities. This highlights the need for a more holistic approach as reforms expand to enhance the quality, comprehensiveness, and patient-centeredness of care. Though FHP clinics show some superiority in continuity and family-focus, substantial enhancements are still required to achieve strong longitudinal provider-patient relationships, care coordination, and personalized services tailored to patients' family context.

Conflict of Interests

Authors have no conflict of interests.

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