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ORIGINAL ARTICLE

Strengths, Opportunities and Challenges of Health Transformation Plan as a Policy of Universal Health Coverage: A Qualitative Study in Kurdistan

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A B S T R A C T

Background: In 2014, the Iranian Ministry of Health and Medical Education (MOHME) has introduced Health Transformation Plan (HTP) to guarantee the provision of high-quality healthcare services. This study aimed to determine the viewpoint of policy-makers, and health system managers affiliated to Kurdistan University of Medical Sciences about the opportunities and challenges of this plan.

Methods: In this qualitative case study, a purposive sampling method was used to select study experts in the field of health system. Research data was collected through semi-structured interviews with 18 participants and two focus group discussions associated with health-care reform issues with policy-makers, and health system managers of the province. Data was analyzed using content analysis method and MAXQDA 10.0 software.

Results: As a whole, study findings revealed 8 main themes and 19 sub-themes and 156 codes regarding HTP factors. Three themes were dedicated to opportunities, strengths and opportunities, with seven subthemes and four themes were dedicated to stewardship, Cultural and educational, infrastructural, staffing and service delivery challenges with twelve subthemes.

Conclusion: The HTP should include effective interventions to overcome existing challenges in the provision of healthcare services through establishing new health facilities, offering recruitment and retention incentives for healthcare professionals, expanding primary health care services to urban and peri-urban as well as rural and remote areas.

Keywords: Health Transformational Plan, Strengths, Opportunities, Challenges, Qualitative Study

Introduction

Universal health coverage (UHC) is the key strategy that health managers and policy-makers should focus on its implementation to ensure a desirable health status for the worldwide population (1). In fact, the establishment of high-performing healthcare systems with particular emphasis on quality, equity, and sustainability of healthcare services is a top priority. To achieve such goals, health systems try to employ health reform programs in their related settings (2). As demand for health services increases, the provision of health services according to the population's health needs based on health equity measures becomes a serious concern for policy-makers. Thus, to achieve the UHC objectives and accomplish equitable access to healthcare services for Iranian citizens, MoHME has established a series of health reforms introduced as health transformation plan in May 2014 (3, 4).

In the first phase of HTP, curative or therapeutic care was mainly taken into consideration in

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hospital settings affiliated with the MoHME. In the next steps, the plan expanded to cover primary health care in November 2014 with the objectives of developing family practice, improving the condition of social determinants of health including health care access and quality, education access, economic stability, safe housing and transportation, access to nutritious foods and physical activity opportunities (5, 6).

Generally, the implementation of HTP has considerably resulted in patient satisfaction, improved access to healthcare services, and decreased burden of out-of-pocket health spending (7). Despite significant achievements, there are still some challenges regarding the HTP which necessitate conducting evidence-based research on topics that could identify existing weaknesses and threats relating to the reform program (8). Furthermore, a better understanding of existing challenges can provide a profound insight into what strategies can be implemented to improve the current condition of the plan and advance toward universal health coverage in a more effective, efficient and sustainable manner (1). Accordingly, once the present situation improves and better-quality healthcare services are delivered to people worldwide, it can be anticipated that health indicators will scale up significantly in all geographical regions even the suburbs, deprived and remote ones (1, 9).

Given the significance of studies evaluating the strengths, opportunities and challenges of the HTP, this study aimed to determine the viewpoint of policy-makers, and health system managers affiliated with the Kurdistan University of Medical Sciences about the strengths, opportunities and challenges of Iran's Health Transformational Plan.

Materials and Methods

Study type

A content analysis study was conducted to acquire an inclusive understanding about health managers and policy makers' attitude toward the strengths and challenges of HTP. The study participants were selected from heath authorities and those in charge of decision-making in different managerial levels of healthcare system in the Kurdistan province.

Study participants and sampling

Face to face interviews with 18 relevant informants (managers) in the field of health affairs and transformational plan which had been implemented in Iran health system, and three rounds of FGDs with 28 executive authorities of the health deputy were conducted through a qualitative method to facilitate the achievement of precise and comprehensive information about participants' attitude, and viewpoint (10). purposive sampling was used to choose the participants who met the inclusion criteria including having at least five years of management experience in the health system and being involved in the HTP implementation (Table 1).

Table 1. Characteristics of the study participants

Level	Organizational post	Method of data collection	Number of participants
Health deputy of the medical university	Vice-chancellor and managers	Interview	10
Health deputy of the medical university	Executive authorities	FGD	12
District health network (DHN)	Managers	Interview	8
District health network (DHN)	Executive authorities	FGD	16

The sampling process continued until it reached data saturation. In the next step, based on the literature review and expert opinions about the HTP and related consequences, an interview guide was developed (Table 2).

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Table 2. Sample of questions asked through the interview

What do you understand by the term HTP?
Do you believe that HTP has properly been implemented?
Do you believe that HTP could respond effectively to the essential needs and challenges of the health system?
To what extent has HTP succeeded in identifying the health system's shortcomings and resolving the existing problems?
How do you assess the implementation of HTP in Kurdistan province?
Can you mention some of the main strengths of HTP has emerged in the health system of Kurdistan province?
Can you mention some of the main challenges of HTP in the health system of Kurdistan province?

Data Collection

In-depth, semi structured interviews were conducted to collect data from study participants in such a manner as to prevent directional answers, but at the same time invite them to explain more about their experiences. In fact, the opportunity for further comments was provided in the final question of the interview. Furthermore, the interviews were carried out between October and December 2020 and were conducted face-to-face lasting about 35 minutes. In order to ensure the reliability of questions, each participant was asked similar questions presented in the same order as other respondents. All the interviews were directly recorded and transcribed by the two interviewers after getting necessary permissions. In addition, to gain inclusive information about the study participants' opinions, attitudes and experiences, FGDs were also conducted. To achieve this purpose, after giving a short explanation about HTP and its main mission and goals by the interviewer, the study participants were persuaded to discuss explicitly their opinions and experiences relating to the program implementation. The researchers took accurate notes of crucial details discussed during the FGDs. Each FGD lasted approximately 2 hours and continued until no new issues arose.

Data Analysis

To analyze the qualitative data, the content analysis method was used which included five stages including familiarization, developing a thematic framework, indexing, charting, mapping and interpretation. Using a thematic framework, two independent researchers identified key categories by reading the transcripts. Subsequently, to identify and summarize important concepts within a set of data, labels (codes) were assigned to each piece of the transcribed text. Also, to ensure the accuracy and validity of questions, the method proposed by Lincoln and Guba was applied. To improve the analysis reliability, MAXQDA software 10.0 was used to support the coding of the interview material. Then in order to explore the credibility of results, a member check strategy was used so that gathered data were returned to participants to check for accuracy and compatibility with their experiences (11). The ethical code was IR.SBMU.SME.REC.1398.041.

Results

4.1. Characteristics of Study Participants

A total of 46 study participants were included in our study. That detail of characteristics shows in table 3.

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Table 3. Study Participants' Characteristics

Characteristics	Categories	Frequency	%Frequency
Gender	Female	21	45.7
	Male	25	54.3
Education	BSc	24	52.17
	MSc	15	32.61
	PhD	7	15.22
Work experience	11-15	10	21.74
	16-20	18	39.13
	21-25	13	28.26
	26-30	5	10.87
Job title	Executive manager	2	4.35
	Health planning manager in health deputy	9	19.56
	Head of the health center	7	15.22
	Chief expert of health planning in the deputy of health	28	60.87
Age	30-40	19	41.3
	41-50	20	43.48
	≥51	7	15.22

The corresponding responses were categorized in two main categories including the strengths, opportunities and main achievements of HTP; and the challenges of HTP from the perspectives of managers and executive authorities of Kurdistan health system.

The main achievements, opportunities and strengths of HTP

Study findings revealed 8 main themes and 19 sub-themes and 156 codes regarding HTP factors. The main themes and sub-themes some codes of achievements, opportunities and strengths of this plan are explored and presented in Table 4.

Table 4. Main themes and Sub-themes regarding the Achievements, Opportunities, and Strengths of HTP according to Participants' Viewpoint

Main themes	Sub-themes	Labels/ codes
HTP achievements	Impact on indicators	Early diagnosis of hypertension and diabetes Oral health Mental and nutritional health Access to health services particularly in suburbs Establishment of required healthcare facilities Recruitment and retention of health professionals Maintenance in health facilities Proper access to Internet Expansion of health networks
	Satisfaction of both health providers and health recipients	Satisfaction of health providers Satisfaction of health recipients
	Socio-cultural impact	Employment Ensuring the receipt of appropriate healthcare services Government funding and support for HTP
HTP opportunities	Adequate infrastructure	Strengthening the inter, intra sectoral collaborations to provide health services Appropriate geographical coverage, differing levels of healthcare and the existence of referral health system Expansion of electronic services

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Main themes	Sub-themes	Labels/ codes
HTP strengths	-Designing basic health service packages	Appropriate service packages for mental health Appropriate service packages for nutritional health Appropriate service packages for oral health
	-Retention of health service providers and strengthening rural insurance	Retention of physicians and midwives in rural healthcare facilities The quantitative and qualitative increased coverage of mental and nutritional health services
	-Universal health services and the electronic registration of provided services	Special attention given to the risk assessment of non-communicable diseases Development of several health promotion programs for a variety of sexual-age groups The establishment of electronic health records

1-HTP achievements

1-1-Impact on health indicators

According to the participants' viewpoint, one of the main achievements of the implementation of HTP was the significant improvement of some health indicators.

"I believe that the rate of early detection of non-communicable diseases has increased after the implementation of HTP. In addition, following the plan, the overall health indicators particularly those in the field of psychological, nutritional, and oral health have been upgraded." (M2).

Regarding access to healthcare services, study respondents believed that after the implementation of HTP, physical access to healthcare facilities, and emergency services as well as dentistry, pharmacy, radiology, and laboratory services was improved in an appropriate manner.

"In my opinion, in HTP almost all healthcare centers in rural areas and over 90% of urban health centers were activated". (M9)

Study participants also declared that the implementation of HTP could improve the condition of service delivery infrastructures in most of the areas.

"I think that the existence of health workers, physicians and midwives in villages and the recruitment of mental health experts and nutritionist have fundamentally played a key role in meeting the healthcare needs of the community". (B4)

1-2-Satisfaction of both health providers and health recipients

According to the participants' point of view, HTP could facilitate the physical and economical access of the population to healthcare services especially in the first year of the plan implementation. Thus, most of them agreed with a significant increased level of satisfaction among service recipients.

"As I can hear from my colleagues, physicians have been most satisfied with the change in their income while patients were mostly satisfied with HTP in the fields of nursing staff, medical personnel, decreased rate of out of pocket, provision of medicines, medical supplies and equipment directly by hospital settings, increased information sharing and clinical team accountability". (B7)

1-3- Socio-cultural impact

Interviewees supposed that the implementation of HTP had both direct and indirect achievements. As well as it could improve some of the health indicators, it also provided a variety of job opportunities which brought about positive economical consequences and elevated the level of health literacy in the community.

"In order to successfully implement HTP, a greater number of health personnel will be needed; thus the plan provided an opportunity to employ new workforces and consequently it boosted employment". (B2)

2- Opportunities

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2-1-Adequate infrastructure

The government financial, technical, and political support for the implementation of HTP was one of the important opportunities mentioned by most of the study participants.

"Access to basic health services and the significant reduction of out-of-pocket payments through the provision of adequate insurance coverage for both rural and urban population signifies a strong support and contribution of the government for the HTP". (M2)

"We should not forget that in the first stage of the HTP, the government recognized the potential of community based organizations channels for designing and executing low-expenditure health delivery programs. For example, some of the major government-run plans such as the volunteer women's health program could be integrated with non-governmental organizations (NGOs)' activities to increase funding, moral and technical support in general". (M10)

They mentioned health technologies and information systems as essential tools for improving planning, implementing, evaluating, and evidence-based decision making.

"Previously, Internet access and its speed were considerably low in the province, but now it is getting better day by day, and provides a good opportunity to establish health electronic records in healthcare settings". (*M4*)

3- Strengths

3-1- Designing basic health service packages

Most of the participants believed that the designing phase of HTP was appropriate and thus useful in case of implementing the program according to regulatory obligations.

"In my opinion, adequate expert review has been done on the structural and theoretical aspects of the program; for example, designing appropriate service packages to cover most of the fundamental health services is one of the strengths of HTP. (B2)

3-2-Retention of healthcare providers and strengthening rural insurance

Some of the interviewees assumed that due to the subsequent increase in the amount of salary offered to health workforce during the implementation of HTP, the probability of being retained in rural, remote, and deprived regions would increase significantly.

"As I see, the increased income of rural family physicians has motivated some of the urban physicians to move into villages and cover the health needs of rural areas". (B2)

3-3-Universal health coverage and electronic registration of provided services

Study participants also mentioned that the implementation of HTP, added new health promotion schemes to the health system.

"I can mention mental, nutritional, and oral health service packages as well as the establishment of necessary infrastructure for the provision of emergency services in rural and remote areas, increasing the access to essential pharmaceutical items, and diagnostic facilities as other strengths of the plan". (M9)

"I personally believe that after the execution of HTP, a significant improvement has been made in the field of mental health issues of the community. Before the program, the number of mental health experts was so limited that they could rarely take preventive actions toward the psychological needs of the population; but now an increased number of experts in this field helped us conduct scientific investigations and promotional interventions with a prospective approach". (M11)

Challenges

The main themes and sub-themes of this category are depicted in Table 5.

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Table 5. Main themes and Sub-themes regarding the challenges of HTP according to Participants' Viewpoint

Main theme	Sub- themes	Labels/ codes
Stewardship challenges	Challenges in policy making	Lack of evidence-based policy making and regulation Inappropriate payment system Unsustainability of support directed to the program
	Poor participation and coordination	Poor public partnership Poor inter, intra-sectoral relationships
	Ineffective monitoring and evaluation system	Inappropriate monitoring of HTP due to lack of a proper controlling system
Cultural and educational challenges	Weakness of cultural context	Insufficient education and information sharing among population Insufficient training of health workforce Insufficient referral system
Service delivery challenges	Lack of the comprehensiveness of services	Lack of appropriate structure for delivering comprehensive health services
	The weak implementation of HTP instructions	Following instructions in a subjective manner
Staffing challenges	Poor performance of health workforce	Inappropriate attitude and performance of health workforce
	Lack of a systematic need assessment to recruit qualified health manpower	The recruitment of disproportionate number of staff regardless of the project advancement
	Lack of adequate manpower	Lack of sufficient health manpower in some of the work areas
Infrastructure challenges	Financial problems	Inadequate funding Unsustainability of monetary resources Poor financial management
	Lack of physical resources	Poor management of physical structures
	Inappropriate information system	Lack of comprehensive and coherent electronic health records

4-Stewardship challenges

4-1- Challenges in policy making

Based on the study participants' viewpoint, the HTP has been modeled on other countries, regardless of their economic, social and cultural condition.

"I believe that in many cases, the reform plans of other countries are just copied and implemented without proper investigation and localizing; which ultimately will result in several executing problems due to the ignorance of actual cultural, social, and economic condition of the country". (B4)

*"**A** pilot program could help confirm the readiness of the system for full-scale project implementation". (B2)*

"In my opinion, an increasing demand for the participation of different stakeholders in the health system including patients, healthcare providers, health insurance companies, NGOs, and non-governmental entities can result in positive effects of health planning, and policy making". (M9)

The same procedure for the implementation of HTP in different regions of the country, both deprived and non-deprived regions, was another main weakness of the plan from the participants' point of view. Study participants also declared that social determinants of health have major impact on health

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outcomes especially for the most vulnerable populations.

"I believe that if a health system does not consider the improvement of social determinants of health such as socioeconomic status, safe neighborhood and physical environment, flourished employment, and social support networks, it cannot achieve the goal of increased access to healthcare services". (B4)

They declared that share of financing for curative and clinical services as a percentage of current health expenditure was much higher compared to health promotion and preventive care. *"Although the health system is absolutely an integrated scheme of delivering curative, treatment care and preventive, sanitary services in theory, but unfortunately the main priority and a large amount of funding are pushed toward treatment services in practice". (M16)*

Differences in the payments made to medical personnel working in clinical and hospital settings and those working in healthcare units and primary health delivery facilities were also other challenges cited by the interviewees.

"Health staffs who work in healthcare centers earn one-third and sometimes one-fourth of those who work in hospital settings". (M22)

In pay for performance system, physicians are more probable to emphasize on qualitative measures rather than just attending in healthcare units. On the other hand, some of the interviewees disagreed with the effectiveness of pay for performance system and mentioned that in the absence of a coordinated monitoring and evaluation system, this type of performance would be challenging.

"Electronic registration of provided services regardless of quality indicators is a significant challenge. In fact, the payment system which is organized based on the weight and quantity of delivered services could lead to unreal claims of personnel about the volume of provided service". (M11)

Although HTP in Iran was developed to ensure health-care accessibility, financial protection, and reduction in out-of-pocket payments, the unsustainability of funding sources has stopped the successful improvements of the program.

"At the beginning, HTP was implemented with the highest level of political support and government funding; but some months after the project implementation factors such as supplier-induced demand in health care, an increase in the level of health expenditures, irrational medical tariffs and consequently unfair payments to healthcare providers and uncertainty in funding sources resulted in dramatic concerns about persistency of the program. If the current situation continues, the successful continuation of the project would be impossible". (M15)

4-2-Poor participation and coordination

By encouraging public partnership both in planning, and the implementation of HTP, the probability of achieving more equitable, and sustainable health outcomes will be increased.

"I think as every decision-making process for the health system ultimately affects the community, thus public participation would encourage the public to take meaningful steps toward the policy-making process. In fact, public partnership provides an opportunity for effective interactions between the community and governmental agencies". (M9)

One of the interviewees referred to Ottawa charter as a key milestone in health promotion interventions worldwide, and added that in order to attain health reform objectives it is necessary to focus on public partnership and training people to increase control over their health.

"I believe one of the most obvious forms of public partnership in health promotion plans is self-care". (*B3*)

Another key feature of public participation is health education volunteer project which constitutes effective interactions between health *volunteers* and the population

"There are a group of individuals who are always interested in improving public health knowledge

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through assisting in health education volunteer projects. The use of practical techniques such as public meetings, interactive workshops, interviews, focus group discussions, and other possible methods can efficiently use the public potential, desire, and available resources to address the main health issues of the community". (M17)

Study participants declared that an effective performance of a health sector depends mainly on an integration of different governmental and non-governmental sectors of the community with an aim to improve the health status of the population.

"Lack of adequate funding and obligation, irresponsibility of executive managers, poor infrastructure and lack of skilled health workforce were recognized as main challenges of inter-sectoral collaborative initiatives". (B2)

Another participant referred to Alma Ata Declaration of 1978 which has emphasized on the key role of inter-sectoral collaboration in resolving existing health problems more profoundly based on an improved sharing of costs for service provision in addition to sharing the knowledge, skills, and resources of different sectors.

"*I think that low political commitment, lack of responsibility, lack of a practical communication strategy, and inadequate financial resources and skilled health workforce are major factors that hinder effective inter-sectoral collaboration. I should focus on the fact that political support is key to promote many of the determinants of health which exist outside the direct influence of the health sector". (M5)*

. They defined intra-sectoral coordination as a proper settlement of different sub-processes and activities, taking place simultaneously within a health sector and between its different sub- systems and units.

"In my opinion, health policy makers should not overlook the significance of social determinants of health in achieving health outcomes in a more effective, efficient and sustainable way. As health problems are multi-dimensional, and complicated, it signifies the necessity of public partnership, and structured inter, intra-sectoral communication to address the diversity of these determinants". (M14)

4-3-Ineffective monitoring and evaluation system

They recognized that improving the performance of health systems does not only require an increasing in the numbers of health workforce but also it needs a proper monitoring of their recruitment, distribution, retention and productivity.

"I assume that some of the strategies including the adaptation of pre-service and in-service training; developing workforce improvement programs; and establishing incentive mechanisms for resolving health manpower issues should be applied to monitor health workforce metrics in a more effective manner. We definitely lack an efficient health information system to facilitate monitoring and evaluation mechanisms. Through an existence of information system we can provide a potential to manage health facilities, health manpower, health plans, research objectives, trends of health indicators, and communication of health challenges to related users. As I see in many countries, decentralization as a key consequence of the health sector reform has brought about several changes in the communication between central and peripheral levels of the health system which required new information needs and data collection, processing, and analysis services. If we fail in the implementation process of health monitoring, we will definitely face unmanageable issues in the fields of prevention, early detection of diseases and controlling the medical costs". (B2)

5-Cultural and educational challenges

5-1-Weakness of cultural context

Most of the respondents believed that inadequate education and information sharing among people, insufficient attention of trustees to educational programs and low participation of people in health programs are the main weaknesses of the implementation of HTP.

"In my attitude, in the implementation of HTP, people at national, provincial and city levels were

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not received necessary information about the project and its potential consequences. I think differing cultural and educational backgrounds among people, and health policy makers can cause significant barriers in the way of health reform programs. It is better to establish health education from childhood and elementary level". (M11)

Weakness of training and development programs, insufficient information given to health providers about HTP, and lack of the involvement of university professors in training programs were among the weaknesses pointed out by most of the interviewees. *"I mean that staff training before starting the HTP was inadequate due to the tight schedule of the plan implementation".* (*B2*)

Some participants believed that due to the workforce multiplicity in HTP and fast implementation of the program, there was no enough opportunity to develop the knowledge, skills, and required information of the health personnel in a proper manner.

"For example, new forces were recruited in the health system that were theoretically literate but did not have the practical experience to work in the field. On the other hand, their training was inadequate and not sufficient to develop their necessary skills. In a healthcare unit, I faced a health technician who was not able to vaccinate properly, and that was really a great threat which might have caused serious complications after the vaccination". (B3)

Some others added that adjusting education processes to new health services needs can harmonize training with the actual needs of the health workforce.

The study participants also mentioned an ineffective referral system as a major challenge for the implementation of HTP. Poor coordination of patient care transitions imposes administrative costs, and at the same time it deteriorates patient health outcomes. They emphasized that usually half of the patients lose the opportunity to be followed up with the referring physician after the care is initially provided.

"I highlight the point that physicians should have an appropriate access to medical records of patients in order to be able to provide comprehensive healthcare services to the population. In fact, referral system in the health sector is a fundamental element of healthcare management and the assurance of high-quality health outcomes. We could not properly utilize the potentials of referral system in improving the health outcomes and promoting patient satisfaction". (M19)

6- Service delivery challenges

6-1-Lack of the service comprehensiveness

Study respondents focused on the fact that although HTP had main objectives of providing holistic and appropriate care across a broad spectrum of health problems, sexual-age ranges, and treatment modalities, it could not achieve them in an effective, efficient and sustainable way.

"In my attitude, having access to care is important to improve quality healthcare and related health outcomes. However, it is not the only prerequisite for this aim. Patients should also receive the right care at the right time in order to attain the right results". (M18)

6-2-The weak implementation of HTP

The participants mentioned that in order to successfully implement HTP in practice, it is needed to incorporate key factors such as employment, education, socioeconomic status, housing, physical environment, life-style, social support networks, as well as access to comprehensive healthcare services in the program.

"One of the biggest challenges in the way of successful implementation of HTP is improper use of electronic health records. Despite its potential benefits, the implementation of this technology faced with several barriers due to cost restrictions, technical inadequacies, standardization limitations, and significant infrastructure constraints". (M3)

7- Staffing challenges

7-1-Poor performance of health workforce

The interviewees believed that because of health

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policy changes during the implementation of HTP and consequent reduced budgets, also the difficulties in staff recruitment and retaining procedures an important challenge of poor performance among healthcare staff is obviously clear.

"*I should emphasize that inappropriate ratio of patients to health workforce significantly constitutes to patient safety and the status of health indicators; heavy workload and higher work intensity can result in an increased risk of work-related stress, fatigue and burnout which accordingly bring about ill health of the health workforce*". (*B2*)

7-2-Lack of a systematic need assessment to recruit qualified health manpower

Correspondingly the interviewees added that in the health sector more appropriate ratios of patients to health-care workers can improve working conditions and consequently health indicators for care recipients. They also continued that workforce situation analysis is essential to better determine future staff requirements based on influencing factors including population growth, epidemiological changes, technological advancements, and upgraded health policy.

"Addressing an evidence-based workforce need assessment is crucial both for determining the actual demand for healthcare providers and at the same time identifying technical, knowledge and competency limitations of existing workforce needing to be scaled up. I believe that estimating the future health workforce needs can help policy-makers to effectively address the issues of staff recruiting, training, motivating, retaining, and managing". (M11)

7-3-lack of adequate manpower

"One of the main challenges is that future staffing need assessment mainly expressed in terms of numbers; while it should be considered in terms of different work environment dimensions, skills mix, working conditions, and the health reform targets". (M12)

8- Infrastructure challenges

8-1-financial problems

8-2-lack of physical resources

8-3-inappropriate information system

The interviewees emphasized that sufficient funding, availability of required physical resources and appropriate information system should be in place to effectively achieve the objectives of HTP.

"Sufficient financial, and physical structure, availability of proper equipment, medical consumables and drugs, and most importantly the existence of effective health manpower are requisites of achieving adequate HTP objectives". (M22)

Discussion

Given the emphasis on health transformation plan, the MoHME of the Islamic Republic of Iran highlighted the need for better understanding the status of plan implementation in the health sector. According to the study results, the main achievements and strength points of HTP particularly in the first year of the plan implementation were promotion in some of the health indicators, patient satisfaction, increased level of access to healthcare services in rural and remote areas, retention of physicians in public delivery facilities, improved health coverage, the development of basic health service packages including nutritional and mental health support programs, equipping and repairing healthcare facilities, and employment. Correspondingly in a study by Raisi et al(12). rural health services provision including purposeful health services for mental health of the population has been mentioned as one of the key achievements of HTP. Furthermore, they emphasized screening programs which have been executed as one of the important missions of the plan to promptly identify the population who were at higher risk of a health problem. In another study, population screening programs and timely identification of at-risk population were considered as key achievements of HTP (13). Boolhari(14)found that integrating mental health services into primary health care is a

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cost-effective strategy which requires continuous monitoring and evaluation to achieve desirable outcomes. In line with our findings several other researchers agreed that HTP could result in an increased level of access to healthcare services. In addition, they underlined that improving the status of health care infrastructures including health delivery facilities with appropriate medical supplies and equipment, upgraded electronic health record system, development of health network expansion and improved health services delivery standards were among other main achievements of the program (12-14). On the other hand, improving the quality, access, and equity of health services provision in the community through improving the physical, human resources and infrastructural standards will ultimately result in both the satisfaction of healthcare providers and health recipients. In the first year of the plan implementation, physicians and most of the other healthcare providers were more willing to engage in family physician program particularly in rural, remote areas. This incentive has led to longer survival of the population, and lower morbidity rates through the provision of affordable health services. In fact, a direct relationship between the satisfaction of health services recipients with some of the factors including construction, reconstruction, equipping, and renovation of healthcare centers was approved in several literatures (14-16). Some of the main cultural and social achievements such as job creation and health security were also mentioned in some of the studies as indirect strength points of the program (12, 16).

Despite major achievements attained at the beginning of HTP, due to resource constraints and inadequate support from senior health managers and policy-makers the plan faced with serious challenges. Stewardship challenges were among important shortcomings which constituted the weaknesses in policy-making, inappropriate obedience of defined rules and regulations in the health reform system, improper public participation and inter, intra-coordination, and last but not least insufficient monitoring and evaluation system. Consistent with these findings, several studies have affirmed a significant association between lack of a strong monitoring and evaluation system with poor obtained results. For example, lack of effective control over the quantity and quality of health services provided for the community was a serious operational challenge of the health reform (17-20). Furthermore, in designing HTP, less attention was given to the economic, social and cultural condition of the country. However, these factors are among the key determinants of health and consequently determine the actual health needs of the population (21-24). Similarly, in a study by Sedighi economic difficulties, environmental and educational problems, organizational and socio-cultural challenges were mentioned as important obstacles for HTP implementation (25). Good treatment at the hospital is not enough to decrease the maternal and infant mortality rate; however, socio-economical factors including healthy water, hygiene, and sanitation are as important (26). Researches have indicated that hygiene promotion interventions are of most cost-effective strategies (27). Thus, health managers and policy makers should understand the role of health systems as facilitators of disease prevention, health promotion, and advocacy for policies that address the population's health concerns. In fact, improved health condition contributes to social wellbeing through its significant effect on economic development, and productivity (28).

Improving access to health workers in rural and remote areas requires a coordinated approach through which community engagement and public participation are doing well; multidisciplinary health teams and social workers are coordinated; socio-demographic factors such as gender, age, social class, ethnicity, disability and religion, as well as socio-economic determinants which might influence the suitability and feasibility of HTP are mentioned in a multi-sectoral approach, with associated collaboration at all levels in planning, implementing, and monitoring strategies (29).

To resolve existing challenges, in addition to understanding the social determinants of health and

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actual health needs of the community, rural health workforce development plans should also be organized in line with primary health care objectives. Therefore, having effective and coordinated multidisciplinary health workforce with a variety of competencies to resolve the health issues of the population is another essential requirement of a successful HTP. Furthermore, effective health manpower management is a fundamental need for successful implementation of retention strategies. Some of the studies affirmed that improving workforce planning, health human resource information management, recruitment practices, and work conditions could play a key role in the program advancement (29). The existence of an effective performance appraisal system within the health system is also a necessity that enables productivity. In order to facilitate a proper appraising system, access to integrated information sources to guarantee appropriate availability of accurate data needed for planning, implementing, monitoring, and promoting the workforce is essential (30). The importance of directing health manpower education towards the priority health concerns of the community is also undeniable (31). Therefore, education institutions should be adjacent to health service needs to develop a relevant and skillful workforce (22).

In addition, to ensure the provision of comprehensive health services, it is imperative to consider socio-demographic characteristics and the local context of the community while selecting the bundle of interventions. Then, ensuring the availability of health workforce in rural and remote areas and enhanced accessibility to the bundle of healthcare interventions together with the establishment of a standard health system performance can result in improved health outcomes of defined interventions (10). To attain this goal and guarantee the sustainability of health reform, it is also essential to provide multi-sectoral collaborations particularly in the fields of policy making and financing between different ministries and sectors, such as health, economic, education, and local government (32).

Conclusion

To ensure sustained efforts in the health reform particularly in Kurdistan province, relevant promoting strategies should be implemented focusing on adequate access to affordable healthcare services by considering the issue from multiple angles. For example considering the identified challenges including staffing issues, resource allocation, infrastructure, referral system, and managerial support has pointed out that overcoming existing barriers could be achieved through effective communications between health team members, public partnership and inter, intra relationships, properly utilizing health information technologies, using appropriate incentives for health manpower recruitment, retention and development, and addressing socio-demographic background of the community as well as their socio-economic condition as key factors in policy making for sustainable health reform.

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Conflict of interests

The authors declared no conflict of interests.

Authors' contributions

Heidarpoor P designed research, Pourmoradi A conducted research, and both analyzed them. Pourmoradi A wrote the paper, Heidarpoor P had primary responsibility for final content. All Authors read and approved the final manuscript.

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