



# Designing an Optimal Model for Development of Neighborhood Health Centers in the City of Yasuj, Iran

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## Abstract

Health is one of the fundamental values and needs of humans. It is an accepted right in international documents such as the Universal Declaration of Human Rights and the statement of the World Health Organization. The present study aimed to design an optimal model for the development of Neighborhood Health centers in Kohgiluyeh and Boyer Ahmad Province, Iran, in 2018 - 2019. The research population included 200 residents and 200 health staff and authorities in the city of Yasuj. The instruments and questionnaires for evaluating and surveying the health centers' duties, people's attitudes, and center development strategies were provided by the researcher and confirmed in terms of validity and reliability. The midwifery service ( $m = 37.4$ ) and mental health service ( $m = 31.8$ ) had the highest and lowest rates of quality score of service, respectively. The mean (standard deviation) scores of people's and authorities' attitudes toward the provision of services in health centers were 4.46 (0.6) and 3.9 (0.8), respectively. The attitude of males, physicians, and nurses had a significant effect on the development strategies of health centers ( $P < 0.05$ ). To achieve better results, neighborhood health centers should respect the principle of equity and equal access, and pay attention to vulnerable classes such as immigrants and low-income populations.

**Keywords:** Pattern Design, Development, Health Centers

## 1. Background

Health or well-being, as defined by the World Health Organization (WHO), is the provision of full physical, mental, and social welfare of humans (1). According to the WHO, environmental, social, and economic factors are among the most important factors affecting people's health. Health promotion can be achieved if people identify and control these factors. This will be possible with the participation of people and their empowerment through community-based health promotion programs. Community-based health promotion as a comprehensive, systematic, and coordinated approach for long-term health effects aims to change the community norms through education and community organization. From the experts' perspective, these interventions could include social assessment, health needs assessment, social organization, and participatory research (2).

Health promotion, as a new and practical science in the field of health, is now becoming more and more popular. In a simple definition, health promotion is the process of empowering people to identify and control factors affect-

ing individual and social health. This process helps people make the right decisions in choosing health-based behaviors and healthy lifestyles (3). Program designers can use social evaluations to identify and determine the potential problems for any hypothetical group of individuals. In this regard, the health needs assessment is the first and most important step in planning and designing the process of intervention (3).

There are various strategies for promoting community-based health, and various models are used for the needs assessment. The type of the intended needs assessment model depends on the essence of the involved people, level of community participation, and available resources, as well as the objectivity of the model, its applicability, and the target group. There are various strategies for promoting community-based health. These interventions include educating individuals and groups in the community, creating opportunities for people to choose health care services, encouraging and facilitating the availability of community health choices, providing finance and other incentives, establishing protective laws, giving people the chance of involvement in the decision-

making process, and designing appropriate strategies (4-6). Evidence suggests that social factors determine behavior and health outcomes. Providing effective health interventions requires community-based approaches (7).

## 2. Objectives

Therefore, the present study aimed to design an optimal model for the development of Neighborhood Health centers in Yasuj as a new and innovative model.

## 3. Methods

This study was conducted in Kohgiluyeh and Boyer-Ahmad Province in 2018 - 2019. A sample of 400 people, including 200 residents referring to five health centers in the city of Yasuj and 200 staff and authorities of the same Health centers, was selected from a pool of 420,000 residents by using Cochran formula, Krejcie-Morgan table, and multistage sampling. Data were collected by questionnaires and searching in the documents of Health centers.

According to the hypotheses and variables used in the research, three researcher-made questionnaires were developed for evaluating health center duties and attitudes, expectations of people from health centers, and the health centers' development strategy. To this end, after reviewing the previous research, the questionnaires were developed in two sections using closed questions. The first part was mostly related to the individual level and covered demographic questions and the second part included questions for designing an optimal model for the development of Neighborhood Health centers in Yasuj, measured on the Likert scale.

To evaluate the validity of the tools, two methods of face validity and CVR were employed. The items whose CVR was more than 0.72 were approved as valid items. The Cronbach alpha method was used to confirm the reliability of the questionnaire and a value of over 0.07 was assumed as the reliability cutoff. The questionnaire of the health centers' duties had seven parts and 70 questions based on the documents from the University of Medical Sciences and the Primary Concept model. Its main goal was to measure the performance of duties by managers, staff, experts, doctors, nurses, and midwives of the Health centers in Yasuj. The CVR score of this questionnaire was more than 0.8 and Cronbach's alpha was 0.87. The questionnaire for assessing the attitudes and expectations of people from Health centers in Yasuj had 20 items on the five-point Likert scale. The CVR score and Cronbach's alpha for this questionnaire were 0.8 and 0.83, respectively. The health centers' development strategy questionnaire was developed using the

EFQM Questionnaire. The questionnaire had eight items, with CVR of 0.8 and Cronbach alpha of 0.92.

The SPSS software was employed to analyze the data in this study. Data analysis was carried out at two descriptive and inferential levels. At the descriptive level, we employed frequency, percentage, mean, median, and other descriptive values. At the inferential level, based on the hypotheses structure and data distribution, parametric (Pearson's correlation coefficient, path analysis, *t*-test, and regression) and nonparametric (chi-square, Kruskal-Wallis, etc.) tests were utilized.

## 4. Results

The study enrolled 400 people, including 200 staff and authorities (50%) and 200 residents (50%) referring to Neighborhood Health centers in Yasuj. Most of the participants from the authorities and people were male (57% and 58.76%, respectively). [Table 1](#) shows the mean scores of seven factors related to providing services in different centers of Yasuj in the authorities' and staff's points of view. The midwifery ward ( $m = 37.4$ ) and mental health ward ( $m = 31.8$ ) had the highest and lowest rates of service from the authorities' points of view, respectively. In general, nutrition service had the highest quality of service delivery from the authorities' view. Furthermore, medical service had the second-highest quality from people's views. From the nutrition-related authorities' view, using educational media had the lowest rate of service delivery in health centers. The mean (standard deviation) scores of the attitudes of people and authorities toward the provision of services in health centers were 4.46 (0.6) and 3.9 (0.8), respectively, indicating a significant difference between the attitude of people and that of authorities regarding the quality of providing services in health centers. [Table 2](#) shows the mean scores of people's attitudes toward the quality of service in health centers by individual variables. Also, there was a significant difference between the attitude of men and women in the quality of services in health centers ( $P = 0.028$ ).

There was a significant positive correlation between service items in health centers ( $P < 0.001$ ). To reach the final model, a theoretical model was developed based on the foundations and approaches of other experts and neighborhood people. This model included health, attitudes of people, physicians, nutrition, nurses, midwives, and health workers. This model is illustrated in more detail in [Figure 1](#). In the next step, the theoretical model of the research was applied and the empirical model of the factors influencing the development strategy of health centers of Yasuj was obtained. Detailed data are shown in [Figure 2](#).

**Table 1.** Seven Factors of Providing Services in Different Centers of the City of Yasuj From the View of Centers' Authorities

| Variables            | Mean | Median | Lowest | Highest |
|----------------------|------|--------|--------|---------|
| Nutrition            | 34.8 | 34     | 13     | 48      |
| Mental health        | 31.8 | 32     | 11     | 50      |
| Environmental health | 33.6 | 37     | 7      | 50      |
| Doctor               | 32.2 | 34     | 18     | 50      |
| Nurse                | 33.5 | 35     | 18     | 50      |
| Health worker        | 32.6 | 35     | 16     | 50      |
| Midwife              | 37.5 | 40     | 17     | 50      |

**Table 2.** Mean (SD) Scores of People's Attitudes Toward Quality of Health Services by Individual Variables<sup>a</sup>

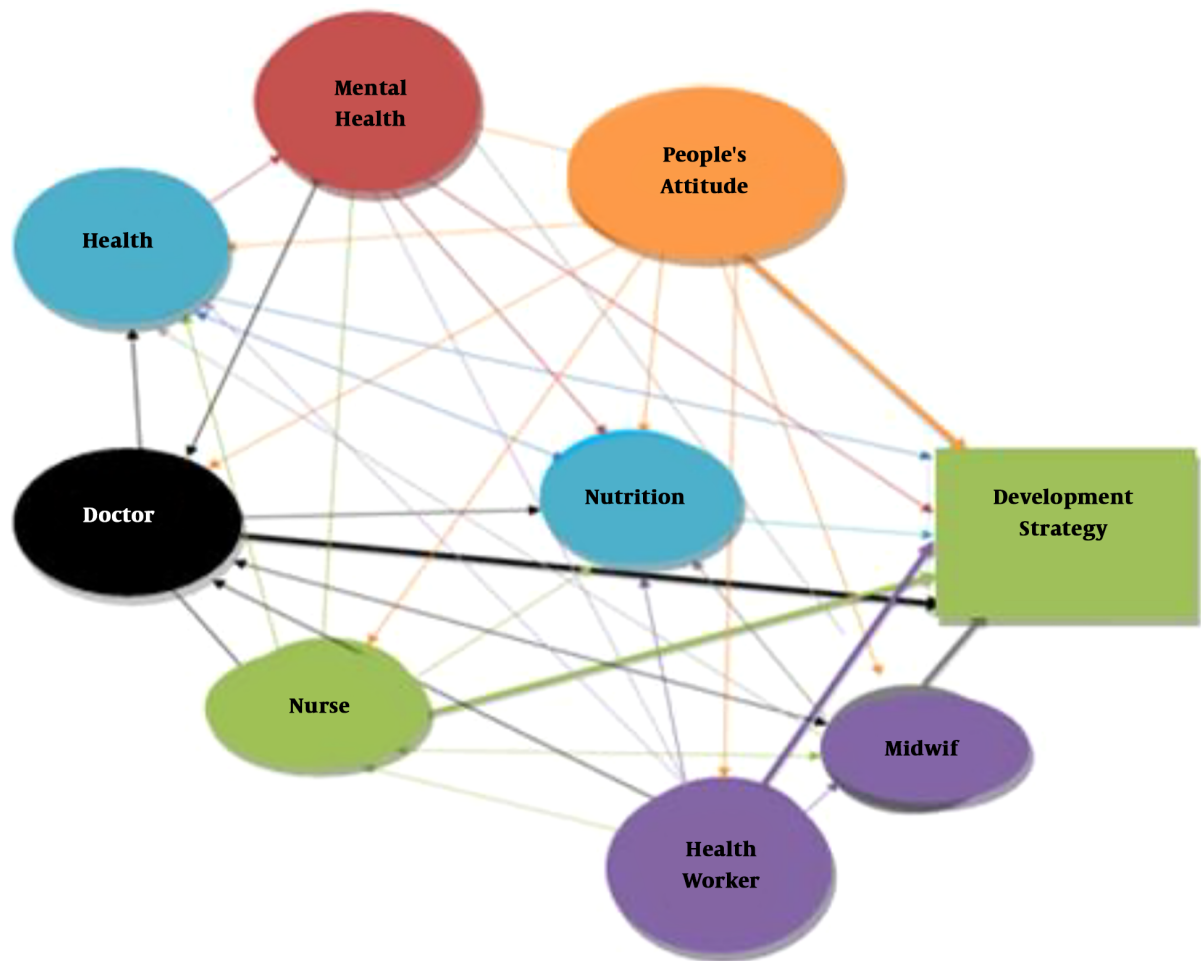
| Variables               | Frequency | Mean ± SD     | 95% CI |         | Sig.  |
|-------------------------|-----------|---------------|--------|---------|-------|
|                         |           |               | Lowest | Highest |       |
| <b>Gender</b>           |           |               |        |         | 0.028 |
| Female                  | 114       | 77.12 ± 13.56 | 74.6   | 79.63   |       |
| Male                    | 80        | 81.02 ± 9.49  | 78.91  | 83.13   |       |
| <b>Education level</b>  |           |               |        |         | 0.056 |
| Diploma degree          | 65        | 76.84 ± 12.46 | 73.75  | 79.93   |       |
| Associate degree        | 62        | 78.5 ± 13.07  | 75.17  | 81.82   |       |
| Bachelor's degree       | 55        | 80.07 ± 10.96 | 77.10  | 83.03   |       |
| Upper bachelor's degree | 12        | 86.83 ± 7.42  | 82.11  | 91.54   |       |
| <b>Age</b>              |           |               |        |         | 0.003 |
| < 20                    | 8         | 63.5 ± 12.01  | 53.45  | 73.54   |       |
| 20 - 25                 | 40        | 77.12 ± 12.35 | 73.17  | 81.07   |       |
| 25 - 30                 | 52        | 80.44 ± 13.26 | 76.74  | 84.13   |       |
| 30 - 35                 | 53        | 80.3 ± 8.86   | 77.85  | 82.74   |       |
| > 35                    | 45        | 79.6 ± 12.02  | 75.98  | 83.21   |       |
| <b>Occupation</b>       |           |               |        |         | 0.274 |
| Unemployed              | 75        | 78.77 ± 11.44 | 76.13  | 81.4    |       |
| Employed                | 71        | 81.19 ± 9.89  | 78.85  | 83.53   |       |
| Housewife               | 47        | 76.36 ± 14.13 | 72.21  | 80.51   |       |
| Retired                 | 5         | 79.6 ± 8.35   | 69.22  | 89.97   |       |
| <b>Region</b>           |           |               |        |         | 0.001 |
| 01                      | 103       | 80.94 ± 9.98  | 78.99  | 82.89   |       |
| 02                      | 9         | 79.22 ± 8.05  | 73.02  | 84.4    |       |
| 03                      | 18        | 77.33 ± 15.25 | 69.74  | 84.91   |       |
| Country                 | 23        | 69.65 ± 9.92  | 65.36  | 73.94   |       |

<sup>a</sup>P < 0.05.

### 5. Discussion

In the present study, a theoretical model was introduced based on theoretical foundations, on the one hand, and the attitudes and opinions of the experts and neigh-

borhood people, on the other hand. Majjala et al. (8) noted that professional health care roles, including nursing had been reviewed in many countries to promote health services. In addition, Masters et al. (9) argued that the roles of



**Figure 1.** Theoretical-conceptual model of factors affecting the development strategy of Health centers

professional nurses were changed from providing patient care to prevention, health promotion, care continuity, and provision of alternative health care. These changes focus on the needs of clients and continuously improve the quality of service delivery. In addition, patient care patterns were changed from biomedical models to holistic care (9).

The results of this study are in line with those of the above-mentioned studies. Thus, it is concluded that the opinions of authorities in systems with a vertical structure as a power pyramid are critical and important. Accordingly, it was shown that the staff and authorities believe that nutrition and education are two main pillars in promoting community health; this idea is consistent with external realities, as well as scientific fundamentals, which declare that the community health directly depends on proper nutrition and education. The findings of the current study also indicated that factors affecting health pro-

motion were largely affected by gender, age, and location of health centers, so that male gender, the age range of 25 to 35 years, and region 1 as the location of the health center were the most influential demographic factors.

In general, it can be concluded that to achieve intentions and goals of Neighborhood Health centers, the principles of equity and equal access to resources must be considered in priority and more attention should be paid to vulnerable populations such as immigrants and low-income people. Also, the participation of people in the implementation of programs and plans should receive more attention. Furthermore, cross-talks and dialogues between health workers, health providers, and people, as well as using the capacity of cyberspace and electronic facilities, are other beneficial choices.

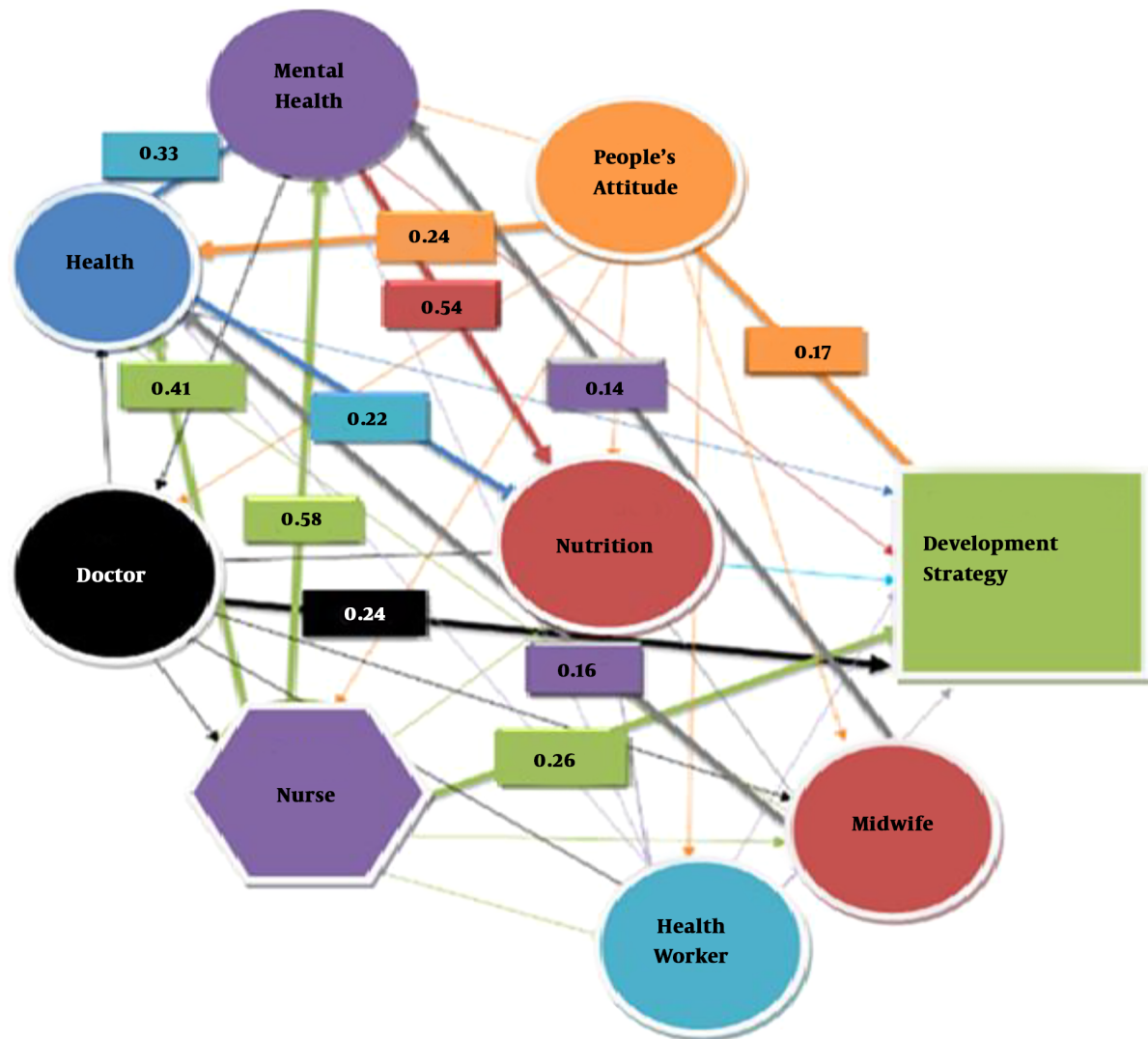


Figure 2. An empirical model of factors affecting the development strategy of Yasuj Health centers

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### Footnotes

**Authors' Contribution:** RO and AB designed the study. PAB conducted the statistical analysis. AB and RO provided technical support and conceptual advice.

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