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The Effect of Supportive Supervision on Improving the Health Indices of Health Centers in Khomeinishahr, Iran

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ABSTRACT

Background: This study investigated the effect of supportive supervision on improving the health activity index.

Methods: The present interventional study was conducted to investigate the control and headquarters level in the organization to increase and improve 8 health indicators. Ten experts from the headquarters stationed in Khomeini Shahr communicated with the personnel of 10 health centres. The population covered by health centres was 40,000 people. The health indicators of the centres were compared before and after 3 months of the supervisory intervention of staff experts from SIB system (Integrated health system). Paired t-test and Kolmogorov-Smirnov test were used to test the items and to check for normality of data distribution. SPSS19 was used for data analysis (P<0/001).

Results: The results showed that all indices except health care activity had a significant increase. Indicators were: child care activity from 71.5 to 83.6%, activity of pregnant mothers from 65.1 to 77.29%, medical care coverage from 149.5 to 187.6%, death rate reports from 10.9 to 20.4%, mental health care from 7.9 to 11.1%, post-natal care from 75.0 to 84.9%, and the percentage of the covered population from 66.2 to 80.6%. Only the health care activity index did not improve significantly and increased from the average of 180.6 to 200.3%. We saw the lowest growth of the index in health care, which increased from 180.6 to 200.3%

Conclusion: Considering the significant impact of the intervention on the indicators, it is predicted that supportive monitoring training will improve the health quality of the country's health system.

Keywords: Supervision, monitoring, health promotion.

Introduction

Monitoring is one of the effective tools to help health managers and staff to increase the efficiency and effectiveness of services needed (Karimi et al., 2014). It can be boldly claimed that the existence or non-existence of a control system of survival and death are directly related (Barzegar et al., 2012). Control is one of the important tasks of managers which, while related to their other tasks, are considered an effective factor in achieving the goals and plans of the organization (Rezaeian, 2005).

Despite the many efforts of health education experts to achieve the country's health goals, compliance with standards in the design and implementation of health education processes is still their main concern. Therefore, a suitable tool that can monitor and compile the process of these standards and their results will be necessary (Asfar et al., 2007).

The supportive monitoring process is conducted in a respectful and non-judgmental manner, focusing on the use of monitoring visits as an opportunity to improve the knowledge and skills of health care workers (Fan et al., 2019 & Som et al., 2014). It is important to pay attention to the policy level to ensure a structured and orderly process based on a shared understanding of the role and purpose of oversight (Bradley et al., 2013). This approach of monitoring increases the efficiency and equity of health services and significantly reduces the burden of disease at a reasonable cost (Motaghi et al., 2017). Currently, in many developing countries, poor oversight undermines the capacity of the workforce to provide quality services (Motaghi et al., 2017 & Koochaki et al., 2018). Supportive supervision improves employee satisfaction and reduces the rate of burnout and stress [10]. Supportive monitoring packages, community monitoring, and quality improvement approaches show the greatest promise of problem-solving (Rajabi et al., 2018). A study on barriers to high quality reproductive health services from the perspective of employees in public health centers in Tabriz, identified non-optimal monitoring and management as one of the five main categories of barriers in this field and supportive monitoring as one of the suggested necessary interventions to improve employee productivity and service quality duties (Hill et al., 2014 & Mohammad-Alizadeh et al., 2009 & Rasooli et al., 2020). Monitoring and evaluation is considered as one of the main methods of quality assurance that should be institutionalized in medical and nursing education (Khodaveisi et al., 2012). Monitoring the decision-making and implementation stages of a development plan is very important (Sarrafzadegan et al., 2003). In another study, managers strongly believed that the current performance appraisal tool could increase efficiency, effectiveness and performance improvement, and another manager strongly agreed with the scoring method (Ameriyoun et al., 2007). In another study, researchers confirmed that managers, while recognizing common performance appraisal methods, wanted to review and improve their performance appraisal system (Rodriguez et al., 2009). Ghasemi concluded in his study that continuous monitoring and evaluation in the management of health care organizations is very clear and undeniable, but this monitoring should be disciplined, reasonable, and impartial to improve the quality of services (Ghasemi et al., 2019 & Amiri et al., 2016). Once the indicators have been determined, the desired or expected amount in those indicators must be determined for the control subjects. The scale for which the rate is set is called the standard (Weihrich et al., 2005; Sepehrmanesh et al., 2017; Bello et al., 2013; Goafashani et al., 2020; & Akbari et al., 2019).

The current monitoring methods in health care networks are not as responsive as before, and to some extent, they have lost their desired effects for several reasons, including the following:

-Indifference of the queue level to the supervision by the staff level, especially by repeating the feedback.

-The feeling of the observers waving from the level of the queue and creating a confrontation.

-Lack of appropriate tools and guarantor of the execution of the requested items in the feedback for correction.

-Lack of proper understanding of the headquarters level from the queue level.

Therefore, this study explored the effect of supportive monitoring of health indicators in Khomeini Shahr health centers on health indicators in 2020. It should be noted that very few studies have been done in Iran in this regard, especially with this type of monitoring and at the level of health centers.

Methods

The present interventional study was conducted to investigate the effect of supportive monitoring on 8 indicators of routine activity during a period of three months before and after the intervention in 10 health centers located in Khomeini Shahr in 2020.

The activity indicators were: child care activity, pregnant mothers, health care activity, physician care coverage, death report coverage, mental health care coverage, full delivery care coverage, and percentage of the covered population.

This research was a quasi-experimental, applied and interventional study performed on 8 activity indicators in Khomeini Shahr in 2020.

In this study, supervisors (headquarters experts) who were 10 people and were stationed at the headquarters of the health and treatment network, worked as liaisons and social workers between the headquarters level and the queue level.

At the front line level, health care workers who were 45 and stationed in 10 health centers (Motahari, Fath Abad, Dastgerd, Kooshk, Asghar Abad, Dorcheh, Manzarieh, Dinan, Adrian, and Boo Ali) provided services to 40,000 people covered by the population of Khomeini Shahr.

Before the intervention, the indicators of the health and treatment centers were extracted from the SIB system and imported into an Excel file and colored (green=good, yellow=average, and red=bad). The red indicators related to each center were intervened.

The intervention in this study included training and support for supervisors who were located in headquarters and they also trained health care workers who were located in health centers. The data related to 8 health indicators before and after the intervention were extracted from the SIB system and compared.

Eight indicators related to each health care center were extracted from the SIB system and were colored by staff experts; the indicators that were red and needed to be corrected were selected. Staff experts negotiated with experts of health centers regarding their indicators. Then, their needs and deficiencies were met and the ways of improving low indicators were taught. This process lasted for 3 months; after 3 months, 8 indicators related to each healthcare center were extracted from the SIB system. Then, the indicators of before and after 3 months of intervention were compared for each center.

The inclusion criteria for staff experts and health care center experts were: work experience of more than 3 years, willingness to participate in the study and attend briefing sessions aimed at studying, and getting to know the SIB system. The exclusion criteria were: unwillingness to participate in the study and lack of familiarity with the SIB system.

In this study, supervisors (headquarters experts), while performing routine past monitoring and reporting, were required to play a supportive role and to accompany and assist them; if they had problems in any area, especially in support cases, they would rush to their aid to remove the obstacles. They also played the role of liaison between the headquarters and the executive level and tried to reduce the distance between these two organizational levels.

The setting of the study was 10 health centres covered by the health network of Khomeini Shahr. The conditions for entering the research included the activation of the health database, a sufficient population for the research and the possibility of preparing activity indicators; the conditions for leaving the research were considered as

inactivation of the database or dissatisfaction with cooperation. The statistical population was the activity indicators such as child care activity, pregnant mothers, health care activity, physician care coverage, death report coverage, mental health care coverage, full delivery care coverage, and percentage of the covered population. The data collection tool in this study was the SIB system. The Online and updated integrated Health System SIB is a system designed for electronic health records developed with the objective of information optimization and providing health care.

The SIB system is located in each of the health databases covered by the health network, in which all daily activities were recorded and it was possible to prepare an activity index at any time. In addition, the activity index was presented separately for employees and the health database over a specified period of time. In the present study, the content validity was examined and confirmed using the opinions of the supervisor, specialists, and experts active in the field of health. Due to the fact that the main tools of monitoring, control and evaluation were prepared and regularly controlled in the national network system, and also some indicators have been implemented for years, the prepared indicators have high reliability.

All data and statistical indicators were collected from the SIB system located at the level of health databases before the intervention. Then, at the beginning of the intervention, these indicators were provided to the observers so that they could try to improve the index by being aware of the situation in their area, and finally, after the intervention, all the indicators were collected again from the Apple system. After the intervention, the information was extracted again from the SIB system and finally imported into SPSS20 to examine the data items obtained from the implementation of the plan before and after the intervention. Also, inferential statistics were used to examine the research items; in this study, paired t-test was used for data analysis and Kolmogorov-Smirnov test was used to check the normality of the data distribution.

As mentioned, in this intervention, by selecting 10 health centres in Khomeini Shahr, 8 activity indicators were intervened. First, to determine the compliance of the data with the normal distribution, Kolmogorov-Smirnov test was used. It was found that all data followed the normal distribution. Therefore, to compare the mean of the index before and after the intervention, Paired t-test was used (P<0/001).

The researcher collected information after negotiating with the vice president of health and health care workers of Khomeini Shahr and providing sufficient explanations regarding the purpose of the study. The thesis proposal was registered with the ethics code: IR.IAU.SHK.REC.1399.041 in the Azad University of Shahrekord.

Results

After determining the value of each index before and after the intervention and analyzing the data based on paired t-test, the results showed that out of 8 items, only the health care activity index had not improved significantly.

Table 1. Test results of before and after of intervention

item number	Item Research	Before the intervention Mean± SD	After the intervention Mean ± SD	Paired t- test df	P-Value
1	Child care activities	71.5 ± 2.5	83.6 ± 2.2	-5.1 33	P<0/001
2	Mothers care	65.1 ± 2.9	77.29 ± 2.8	-3.9	P<0/001
3	Health care	180.6 ± 19.6	200.3 ± 23.9	-1.2 33	P>0/05
4	Physician care coverage	149.5 ± 18.9	187.6 ± 22.7	-3.1 33	P<0/001
5	Death report cases	10.9 ± 0.9	20.4 ± 2.3	-5.9 33	P<0/001
6	Mental health care	7.9 ± 0.3	11.1 ± 0.3	-10.8 33	P<0/001
7	Complete delivery care	75.0± 2.7	84.9 ± 1.7	3.5 33	P<0/001
8	Population covered	66.2 ± 2.1	80.6 ± 2.0	-41.7 33	P<0/001

Discussion

The present study was conducted to determine the effect of supportive supervision on the promotion of health indicators of health centres.

Based on the research findings in the study, supportive monitoring is effective on indicators of health centers and these findings are consistent with the results of the studies done by Danesh Kohan et al. in Rafsanjan University of Medical Sciences. Their research showed that the supportive monitoring tools and the mentioned questionnaires can measure different dimensions of supportive supervision in primary health care with high certainty (Danesh Kohan et al., 2016).

Also, a study entitled: “The effect of supportive supervision training on the performance of the health care network monitoring team” was done by Karimi in Ilam province. The results of their study showed that the implementation of a supportive supervision model affects the knowledge improvement and performance of supervision teams in the health care network and also affects the health indicators improvement. Moreover, applying this method in the health system can play an important role in increasing the efficiency of the system and developing the level of society health; this is consistent with these results (Karimi et al., 2014).

Besides, the results of Barzegar et al.'s studies in Hasheminezhad Hospital in Tehran regarding the relationship between workplace quality and manpower efficiency showed that the quality of work life has a positive effect on manpower efficiency in health centers; this was consistent with the results of this study (Barzegar et al., 2012). In the study carried out by Luo Fan et al. in China on the effect of supervisor support on pursuing research innovation among international PhD students in China found that supervisor support significantly influenced the student research innovation efforts. This study also implies that supportive supervision is necessary to strengthen behavior, creativity and innovation. These results are consistent with this research (Fan et al., 2019). Additionally, the results of a research done by Vahidi et al. in Tabriz health centres showed that multifaceted interventions are necessary to improve the staff efficiency and service quality. These interventions must include pre-service training, supervision and support management, preparation of training materials, simplification of record management and more staff employment in economically deprived areas; this is consistent with this study with its emphasis on the role of supportive supervision in the organization (Mohammad-Alizadeh et al .,2009).

Blue et al. in Nigeria carried out a study on supportive supervision. The results indicated that supportive monitoring is a practical intervention in increasing malaria management knowledge among primary health care (PHC) staff, as well as increasing health care performance. It also showed that after supportive supervision, the ability of staff made significant progress and supportive supervision should be included in existing frameworks to improve the performance of health care staff. There is an urgent need for further studies in supportive monitoring that may lead to improving support monitoring strategies. Their results are consistent with this research, too (Bello et al., 2013).

Conclusion

According to the results, 8 health indicators of the studied items, 7 of which were significantly improved, showed that supportive monitoring has been effective in improving the activity index of health centres in Khomeini Shahr. Of course, in the care index, health has not improved significantly.. Considering that the quality of services provided by health centres is one of the important elements of the quality of health systems in the country, it is very important to try to improve it. In addition, applying training strategies and improving the management skills of human resources is one of the major challenges of health systems.

Hence, promoting a common understanding of the concept, a methodological shift that builds capacity at the lower levels of service delivery for internal supportive supervision, especially in health facilities, is beneficial to reduce the systemic and logistical challenges that hinder implementation. It is predicted that training new methods of supportive supervision for health care providers in health care centres can improve the management perspective of employees and improve the quality of services and ultimately, benefit the community.

The limitations of the study were: the high population covered, the low number of health centers, the high number of health indicators, and collecting information from the large community covered by the Apple system and coloring it in an Excel file.

Conflict of interests

Authors declare no conflict of interest.

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Authors' Contribution

Conceptualization, M.M.; Methodology, M.M and S.SH.; Data collection, M.T.; Writing original draft, M.M.; Data analysis, M.M and M.T.; Supervision, S.SH. All authors read and approved the final manuscript and are responsible about any question related to the article.

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