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The Role of Communication with the Field during the Pandemic Period: A District Intervention Example in Preventive Health Services

Pandemi Döneminde Sahayla İletişimin Rolü: Koruyucu Sağlık Hizmetlerinde Bir İlçe Müdahale Örneği

Mehmet Akif Sezerol[1-3], Zeynep Meva Altaş[4]

[1]Epidemiology Program, Institute of Health Sciences, Istanbul Medipol University, Istanbul, Türkiye
[2]Department of Public Health, School of Medicine, Istanbul Medipol University, Istanbul, Türkiye
[3]Sultanbeyli District Health Directorate, Istanbul, Türkiye
[4]Ümraniye District Health Directorate, Istanbul, Türkiye

Abstract

Aim: The aim of this study was to examine the effect of administrative meetings with family health center staff on cancer and autism screenings in a district of Istanbul.

Material and Method: The study was designed as an intervention research conducted in a district of Istanbul. The population of the study consisted of employees working in family health centers (24 family health centers) in Sultanbeyli district. The meetings were held at the end of February 2022 at the District Health Directorate building. During the meetings, the aspects that need to be improved, especially regarding cancer and autism screenings, were conveyed. Following these meetings for field staff, the changes in preventive health services (number of screenings) at the district level were analyzed. All data were analyzed retrospectively from district health directorate records.

Results: For cervical cancer screening, the total number of screenings in Sultanbeyli district in January-February and March-April were 144 and 235, respectively. For colon cancer, the total number of screenings in January-February and March-April were 54 and 277, respectively. The total number of autism screenings in January-February and March-April were 565 and 1388, respectively. Cervical cancer screenings, colon cancer screenings and autism screenings showed statistically significant increases after the meetings ($p=0.002$, $p<0.001$ and $p<0.001$, respectively).

Conclusion: After the field meetings, there was an increase in cervical cancer, colorectal cancer and autism screenings in the district. Our study results underline the importance of communication with primary care field workers and informative meetings.

Keywords: Family health centers, cancer screening, autism screening

Öz

Amaç: Bu çalışmanın amacı, İstanbul'un bir ilçesinde aile sağlığı merkezi çalışanlarıyla yapılan idari toplantıların kanser ve otizm taramaları üzerindeki etkisini incelemektir.

Gereç ve Yöntem: Çalışma, İstanbul'un bir ilçesinde yürütülen bir müdahale araştırması olarak tasarlandı. Araştırmanın evrenini Sultanbeyli ilçesindeki aile sağlığı merkezlerinde (24 aile sağlığı merkezi) görev yapan çalışanlar oluşturmuştur. Toplantılar 2022 yılı Şubat ayı sonunda İlçe Sağlık Müdürlüğü binasında gerçekleştirildi. Toplantılarda özellikle kanser ve otizm taramaları ile ilgili iyileştirilmesi gereken yönler aktarıldı. Saha personeline yönelik bu toplantıların ardından ilçe düzeyinde koruyucu sağlık hizmetlerindeki (tarama sayıları) değişimler analiz edildi. Tüm veriler ilçe sağlık müdürlüğü kayıtlarından retrospektif olarak analiz edildi.

Bulgular: Serviks kanseri taraması için Sultanbeyli ilçesinde Ocak-Şubat ve Mart-Nisan aylarında yapılan toplam tarama sayısı sırasıyla 144 ve 235'tir. Kolon kanseri için Ocak-Şubat ve Mart-Nisan aylarında yapılan toplam tarama sayısı sırasıyla 54 ve 277'dir. Otizm taramalarının toplam sayısı Ocak-Şubat ve Mart-Nisan aylarında sırasıyla 565 ve 1388'dir. Serviks kanseri taramaları, kolon kanseri taramaları ve otizm taramaları toplantılardan sonra istatistiksel olarak anlamlı artış göstermiştir (sırasıyla $p=0.002$, $p<0.001$ ve $p<0.001$).

Sonuç: Saha toplantılarından sonra ilçede serviks kanseri, kolorektal kanser ve otizm taramalarında artış olmuştur. Çalışma sonuçlarımız, birinci basamak saha çalışanları ile iletişimin ve bilgilendirme toplantılarının önemini vurgulamaktadır.

Anahtar Kelimeler: Aile sağlığı merkezleri, kanser taraması, otizm taraması

Corresponding *(İletişim)*: Zeynep Meva ALTAŞ, Ümraniye District Health Directorate, Istanbul, Türkiye
E-mail *(E-posta)*: zeynep.meva@hotmail.com
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INTRODUCTION

Treatment services and preventive health services are offered together in primary health care institutions.[1] Preventive health services constitute an important part of health services. Because of the complex nature, multiple determinants, and causation of diseases, a broad, comprehensive and sustained effort is required for preventive strategies. Expectations of the benefits of health promotion and disease prevention are of the extremely importance.[2]

Preventive health measures are grouped as primary prevention, secondary prevention and tertiary prevention in order to prevent the related stages of diseases.[3] Primary prevention is expressed as the measures applied to eliminate the causes of the disease before the person becomes ill.[4] Secondary prevention is the early detection of diseases, usually in the form of screening programs. Easier and more effective treatments can be applied to the patient by early detection of diseases with screening programs carried out within the scope of preventive health services.[5] Services offered under tertiary protection are treatments and rehabilitation programs, and services aimed at reducing possible complications of the disease.[6]

Raising awareness in the society about cancer, creating social awareness and cancer screenings are among the most effective methods in the fight against cancer. Early diagnosis of cancer cases can be provided through cancer screenings; thus, early intervention can be possible before the disease progresses and mortality and morbidity can be reduced.[7] In our country, screening is performed in three cancer types recommended by the World Health Organization within the scope of secondary prevention services.[8] The screened cancers are breast cancer, cervical cancer and colon cancer. Within the scope of the breast cancer screening program in women in our country, it is recommended to provide the necessary counseling for women to perform breast self-examination once a month, clinical breast examination once a year and mammography every 2 years for women aged 40-69 years. As part of the cervical cancer screening program, it is recommended that women between the ages of 30 and 65 years undergo a pap smear and HPV-DNA test every 5 years. As part of the colorectal cancer screening program, men and women between the ages of 50 and 70 years are offered a fecal occult blood test every 2 years. In addition, colonoscopy is recommended every 10 years in this age group.[8]

Autism, which is increasing in frequency, is an important public health problem today.[9] Autism is a neurodevelopmental disorder and according to World Health Organization data, one in every 100 children has autism.[10] Since the communication and social skills of individuals with autism can be improved with early diagnosis and interventions, autism screenings conducted in primary care are extremely important.[10] In our country, within the scope of the 'National Autism Action Plan', psychosocial examination of children aged 18-36 months is performed by family physicians and children deemed risky are referred to child and adolescent mental health outpatient clinics.[11]

Studies aiming to protect and improve human and community health fall under the concept of health communication.[12] Health communication is extremely important in preventing diseases and improving health.[13] The success of preventive health services can be increased with accurate health communication. Many studies in the literature have focused on patient-physician communication. However, communication of administrative units with healthcare professionals is also important. The aim of this study was to examine the effect of administrative meetings with family health center staff on cancer and autism screenings in a district of Istanbul.

MATERIAL AND METHOD

The study was carried out with the permission of İstanbul Medipol University Non-interventional Clinical Researches Ethics Committee (Date: 26/10/2022, Decision No: 898). All procedures were carried out in accordance with the ethical rules and the principles of the Declaration of Helsinki.

The study was designed as an intervention research conducted in a district of Istanbul. The population of the study consisted of employees working in family health centers (24 family health centers) in Sultanbeyli district, and no sample selection was made. The meetings were held at the end of February 2022 at the District Health Directorate building. A total of 8 meetings were held with family physicians and family health workers separately in 4 groups. Each family health center was invited to one meeting. The meetings were similar in content and duration (approximately 2 hours) to the physicians and family health workers working in the family health center. During the meetings, district health indicators were presented to family physicians and family health workers working in the field. The aspects that need to be improved, especially regarding cancer and autism screenings, were conveyed. The necessity of screenings conducted in family health centers and the importance of early diagnosis in terms of the course of diseases were mentioned. Following these meetings for field staff, the changes in preventive health services (number of screenings) at the district level were analyzed. All data were analyzed retrospectively from district health directorate records. Apart from this, no data were collected from the individuals themselves.

Statistical Analysis

Statistical analysis of the research data was performed with SPSS 24.0 package program. Descriptive data were presented as number and percentage for categorical variables and minimum and maximum values and median values for continuous variables. Chi-square test was used to compare categorical variables. Wilcoxon test was used for statistical comparison of two dependent groups (number of screenings before and after the meetings). Statistical significance was accepted as $p<0.05$.

RESULTS

Within the scope of the study, the staff of 24 family health centers were interviewed. When 99 units affiliated to family health centers were evaluated, the number of units where both the physician and the family health worker attended the meeting was 63 (63.6%), while in 30 (30.3%) units, one of the physician or family health worker attended the meeting. Six (6.1%) units did not attend the meetings.

Of the 71 family physicians who attended the meeting, 27 (38.0%) were female and 44 (62.0%) were male. The median age of family physicians was 43.0 years (26.0-66.0). The median duration of family physicians' employment in family health centers was 6.0 years, with a minimum of 2 months and a maximum of 11 years. All 84 family health workers who attended the meeting were women. The median age of family health workers was 37.5 years (25.0-52.0). The median duration of employment of family health workers in family health centers was 4.5 years, with a minimum of 1 month and a maximum of 11 years (**Table 1**).

Table 1. Sociodemographic characteristics of family physicians and family health workers

	Family physicians (n=71)	Family health workers (n=84)
Gender, n (%) Female Male	 27 (38.0) 44 (62.0)	 91 (100.0) 0 (0)
Age, median (min-max)	43.0 (26.0-66.0)	37.5 (25.0-52.0)
Duration of working in FHC, median (min-max)	6.0 years (2 months-11 years)	4.5 years (1 month -11 years)

FHC:Family health center

Within the scope of the study, the number of cervical and colon cancer screenings and the number of autism screenings performed by family health centers were evaluated in a 4-month period between January and April 2022. For cervical cancer screening, the total number of screenings in Sultanbeyli district in January-February and March-April were 144 and 235, respectively. For colon cancer, the total number of screenings in January-February and March-April were 54 and 277, respectively. The total number of autism screenings in January-February and March-April were 565 and 1388, respectively.

The median values of the number of screenings in all units in the district before (January-February) and after (March-April) the field meetings organized within the scope of the study were compared. Cervical cancer screenings, colon cancer screenings and autism screenings showed statistically significant increases after the meetings (p=0.002, p<0.001 and p<0.001, respectively). The total number of screenings in our district in the months before and after the meetings are shown in **Figure 1**.

Units of family health centers that attended the meetings with both family physicians and family health workers were considered as fully participating units. Units that attended the meeting with only a family physician or only a family health worker and units that did not participate at all were considered as units that did not fully participate in the meeting, and the increase in the number of screenings in the months after the meeting was compared. The rates of increase in all three screenings were higher in units with full participation in the meeting. The rate of increase in the number of cervical cancer screenings was 36.1% (n=13) in units that did not fully participate in the meeting and 46.0% (n=29) in units that fully participated in the meeting (p=0.337). The rate of increase in the number of colon cancer screenings was 41.7% (n=15) in units that did not fully participate in the meeting and 49.2% (n=31) in units that fully participated in the meeting (p=0.469). The median rate of increase in the number of autism screenings in the post-meeting months was 55.6% (n=20) in units that did not fully participate in the meeting and 76.2% (n=48) in units that fully participated in the meeting. This rate of increase in the number of autism screenings in the units that fully participated in the meeting was statistically significant compared to the units that did not fully participate in the meeting (p=0.033) (**Table 2**).

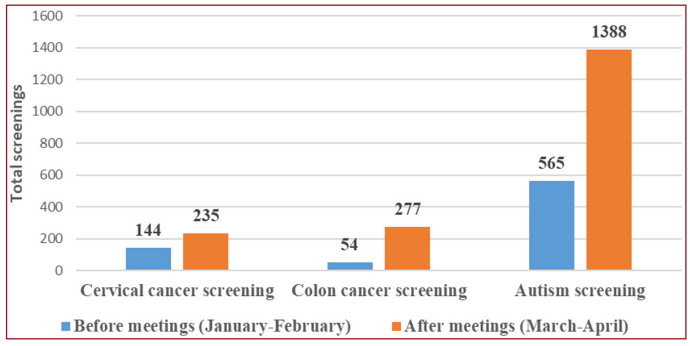

Figure 1. Total number of screenings in the district in the months before and after the meeting

Table 2. Increase in the number of screenings in the months following the meeting with full participation in the meeting

Screenings	Increase in the number of screenings n (%)		P value
	Not fully participating in the meeting (n=36)	Fully participated the meeting (n=63)	
Cervical cancer screening	13 (36.1)	29 (46.0)	0.337
Colon cancer screening	15 (41.7)	31 (49.2)	0.469
Autism screening	20 (55.6)	48 (76.2)	0.033

Factors that may be associated with the increase in the number of screenings were evaluated. No significant correlation was found between the rate of increase in the number of all three screenings and the gender and age of family physicians in the district (p>0.05). Units in family health centers with a population of 3000 or more were considered as high population units and units with a population of less than 3000 were considered as low population units. Units with a low number of population had higher rates of increase in all three screenings, but statistical significance was not observed (p>0.05) (**Table 3**).

Table 3. The relationship between the increase in the number of screenings and the number of family physicians in terms of age, gender and the population of the unit

	Increase in the number of screenings n (%)	Cervical cancer screening	Colon cancer screening	Autism screening
Gender of the physician	Female	18 (47.4)	17 (44.7)	27 (71.1)
	Male	24 (40.7)	28 (47.5)	40 (67.8)
P value		0.516	0.793	0.735
Age of the physician	Above 40	23 (46.9)	25 (51.0)	34 (69.4)
	40 and below	19 (39.6)	20 (41.7)	33 (68.8)
P value		0.465	0.356	0.946
Population of the unit	Low population units (n=12)	2 (16.7)	5 (41.7)	6 (50.0)
	High population units (n=87)	40 (46.0)	41 (47.1)	62 (71.3)
P value		0.054	0.722	0.184

DISCUSSION

Screenings, especially cancer screenings, have an important place in primary health care services. Informative meetings were organized for family health center staff about cervical cancer, colorectal cancer and autism screenings among the screening services offered in family health centers. In this study, we aimed to evaluate the effect of these meetings on the number of screenings and compared the number of screenings before and after the meetings.

In the meetings organized within the scope of our study, 6.1% of the family health center units did not participate. This low rate suggests that family physicians and family health workers have a high interest in the field trainings and meetings to be organized. If trainings are organized to increase the level of knowledge and awareness in other preventive health services provided in primary care, participation may be similarly high. According to the literature, more effective health care is provided with primary health care services provided by well-trained family physicians.[14] For this reason, it is important to maintain communication and interaction with primary healthcare professionals at certain intervals.

In health services, it is necessary to evaluate not only the high level of participation in informative trainings and meetings, but also the extent to which benefits are derived from such participation. In this context, the evaluation of field data before and after the training can give an idea about the efficiency and effectiveness of the meetings organized. In our study, the total number of cervical cancer screenings performed in family health centers in the district in the two-month period before the meetings were 144 and 235. For colon cancer, the number of screenings before and after the meeting were 54 and 277, respectively. For autism screening, the total number of screenings before and after the meeting were 565 and 1388. It is encouraging to see an increase in the total number of screenings for all three screenings we evaluated. In an intervention study in the literature, physicians were provided with reminders such as monthly seminars on cancer screenings and an increase in cancer screening performance was observed after 9 months of intervention.[15] In another intervention study in the literature, electronic reminders about cancer screenings and training of physicians and allied health professionals had a positive effect on colon cancer screening rates.[16] In a study conducted in our country, it was reported that healthcare workers' awareness of the national cancer screening program was not sufficient. In the same study, individual participation rates of healthcare workers in cancer screening were reported to be insufficient.[10] In a different study in our country, similarly, the level of knowledge of primary health care workers about the National Cancer Screening Standards was found to be low. In the same study, the level of knowledge about screening was found to be higher in those who received training.[17] According to the literature and our study results, in order for screening programs to be successful, periodic trainings and meetings should be organized, with emphasis on the areas in which physicians and healthcare professionals working in the field are deficient.

In our study, the rate of increase in all three screenings was higher in units that fully participated in the meetings compared to units that did not fully participate in the meetings. It is likely that this high rate was achieved through participation in the meeting and increased awareness after the meeting. On the other hand, there was an increase in the number of screenings in units that did not fully participate in the meeting, although proportionally lower. This suggests that health workers providing preventive health services are in interaction and information exchange in the field.

When the gender and age of the family physicians who participated in the meeting, which may be related to the increase in the number of screenings, were evaluated, no significant effect of age and gender on the number of screenings was observed. This finding reflects that younger and older physicians and physicians of both genders have similar attitudes towards the provision of screening services.

In the literature, decreases in cancer screening rates have been observed in our country and in different countries with the COVID-19 pandemic.[18-20] The fact that screening rates lag behind other health services may be due to reasons such as closures as a pandemic measure and a decrease in the interest of the society.[19] In one of the studies conducted in our country during the pandemic period, delays in vaccinations offered in primary care were reported.[21] In preventive health services, counseling services and information to be provided to the target group are extremely important. For this, the healthcare professionals who will provide counseling services should also have a high level of knowledge and awareness. We think that our study, which we conducted during the pandemic period, increased awareness about screening. In this way, we anticipate that the possible decrease in the number of screenings with the pandemic will be prevented and screenings will gain importance again in family health centers in the district.

Primary health care providers need sufficient time to carry out screening programs as well as their level of knowledge and awareness in terms of the success of screening services. In primary healthcare services, preventive and curative healthcare services are carried out together.[22] In family health center units with a high number of population, sufficient time may not be allocated for preventive health services. In the literature, lack of time has been reported as one of the main obstacles in the provision of preventive health services in primary care.[23] In our study, no significant correlation was observed between the number of population of the family health center unit and an increase in screening. Qualitative studies examining the barriers encountered by healthcare workers in the delivery of preventive healthcare services are needed.

Limitations and strengths

The fact that the study is based on data from a single district creates a limitation in terms of generalizability of the results. Another limitation is that other factors that may explain the increase in the number of screenings, such as the number of applications to family health centers, were not evaluated within the scope of the study. In addition, since the number of studies similar to our study in the literature is limited, we believe that our study makes an important contribution to the literature.

CONCLUSION

Screenings, which have an important place among health services, should be made widespread and their accessibility should be increased. For this purpose, it is extremely important to increase the level of knowledge and awareness of family health center employees who provide screening services. In the study we conducted in this context, the rate of participation in informative field meetings was high. After the field meetings, there was an increase in cervical cancer, colorectal cancer and autism screenings in the district. This increase was more evident in units that fully participated in the meeting, especially in autism screening. Our study results underline the importance of communication with primary care field workers and informative meetings. Similar interventions can be planned to increase other preventive health services.

ETHICAL DECLARATIONS

Ethics Committee Approval: The study was carried out with the permission of İstanbul Medipol University Non-interventional Clinical Researches Ethics Committee (Date: 26/10/2022, Decision No: 898).

Informed Consent: Since the study conducted retrospectively, no informed consent was obtained.

Referee Evaluation Process: Externally peer-reviewed.

Conflict of Interest Statement: The authors have no conflicts of interest to declare.

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Author Contributions: All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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