Original Research / Orijinal Araştırma

Determination of the Factors Relating to Anxiety Levels of Primary Family Healthcare Center and Contact Tracing Workers for COVID-19

COVID-19 Sürecinde Birinci Basamak Aile Sağlığı Merkezi ve Temaslı Ekibi Çalışanlarının Kaygı Düzeyleri ve İlişkili Faktörlerin Belirlenmesi

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Abstract

Aim: During the epidemic, we aimed to investigate the anxiety levels of the primary level healthcare professionals, especially the contact tracer teams, and to determine the relevant sociopsychological factors (coworker and organizational support perception levels). Methods: The surveys applied to healthcare-professionals were collected online on a voluntary basis via GoogleForms. Mann-Whitney U and Kruskal-Wallis tests were used with SPPS20. The effect size was examined with cohen-d. We used linear regression analysis (enter method) to examine the relationships between sociodemographic factors and independent variables. Results: Anxiety was found in 56.1% of 312 participants, insomnia in 44.2%, a low perception of organizational support in 43.6%, and a lack of support from coworkers in 37.5%. Females and those with chronic illnesses had experienced higher levels of anxiety and insomnia, as well as a lower perception of coworker support. Insomnia severity in contact tracers was high, and their support from coworkers was low. There is a positive correlation between anxiety and insomnia; a negative correlation between anxiety with organizational support and coworker support. Conclusion: The lack of perceived organizational and coworker support, presence of chronic illness, being a woman and using medication are the main causes of anxiety and insomnia. Because contact tracing is preformed independent of time, an increase in the frequency of contacts may cause anxiety and insomnia. High anxiety in females may be a result of a perception of low support from coworkers. Training and supports given to healthcare professionals should be planned by considering these risk factors. Plans should be made to increase the effectiveness of training and support given to primary healthcare workers, and to operate speaking and reward mechanisms to increase motivation. To support this planning, the share in the overall budget and the organizational strength of primary health care providers should be increased. The working conditions of contact tracers should be improved.

Key words: COVID-19, contact tracing, organizational and coworker support, anxiety, insomnia.

Özet

Amaç: Salgın sırasında, temaslı ekipleri başta olmak üzere birinci basamak sağlık çalışanlarının kaygı düzeylerini araştırmayı ve ilgili sosyopsikolojik faktörlerin (iş arkadaşı ve örgütsel destek algı düzeyleri) belirlenmesi amaçlanmıştır. Yöntem: Sağlık çalışanlarına uygulanan anketler, Google Forms aracılığıyla gönüllülük esasına dayalı olarak çevrimiçi olarak toplanmıştır. SPPS20 prgoramı aracılığıyla Mann-Whitney U ve Kruskal-Wallis testleri kullanılmıştır. Etki büyüklüğü cohen-d ile incelenmiştir. Sosyodemografik faktörler ve bağımsız değişkenler arasındaki ilişkileri incelemek için doğrusal regresyon analizi (enter metod) kullanılmıştır. Bulgular: 312 katılımcının %56.1'inde anksiyete, %44.2'sinde uykusuzluk, %43.6'sında örgütsel destek algısı düşüklüğü, %37.5'inde çalışma arkadaşı desteği yokluğu mevcuttur. Kadınların, kronik hastalığı olanların, düzenli ilaç kullananların anksiyetesi ve uykusuzluk şiddeti yüksekken çalışma arkadaşı desteği algısı düşüktür. Temaslı ekibinin uykusuzluk şiddeti yüksekken çalışma arkadaşı desteği düşüktür. Anksiyete ile uykusuzluk arasında pozitif; örgütsel destek ve çalışma arkadaşları desteği arasında negatif korelasyon vardır. Sonuçlar: Algılanan örgütsel ve iş arkadaşı desteğinin olmaması, kronik hastalık varlığı, kadın olma ve düzenli ilaç kullanımı anksiyete ve uykusuzluğun başlıca nedenleridir. Filyasyon çalışmasının zamandan bağımsız olarak yürütülmesi sebebiyle temas sıklığının artması anksiyete ve uykusuzluğa neden olabilir. Kadınların anksiyete yüksekliği; algılanan çalışma arkadaşı desteği düşüklüğünün bir sonucu olabilir. Sağlık profesyonellerine verilen eğitim ve destekler bu risk faktörleri göz önünde bulundurularak planlanmalıdır. Filyasyon ekiplerinin çalışma şartları iyileştirilmelidir. 1.basamak sağlık personeline verilen eğitim ve desteklerin daha etkin hale getirilmesi, motivasyonu arttırıcı söylem ve ödül mekanizmalarının işletilmesi planlanmalıdır. Bu planlamaya destekleyici yönde birinci basamak sağlık hizmeti sunucularının genel bütçedeki payı ve örgütsel gücü arttırılmalıdır.

Anahtar kelimeler: COVID-19, temaslı takibi, örgüt ve arkadaş desteği, anksiyete, uykusuzluk.

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Introduction

The New Coronavirus Illness (COVID-19) appeared in the Chinese city of Wuhan on 31 December 2019, and spread rapidly to other countries, threatening all of humanity with a pandemic.[1] In Turkey, the first case was confirmed on 11 March 2020[2]; and the WHO declared COVID-19 to be a public health emergency of international importance. Because the virus has the ability to spread from person to person and the high death rates, emergency prevention and treatment strategies were required[3,4]; and taking these characteristics of the virus into account, it was necessary to take measures to restrict movement and to reduce the rates of infection.[5] İn the absence of pharmaceutical measures, ways to control the spread of the virus are more source control and prevention of infection.[6] In Turkey, the first step in combating infectious diseases when cases are reported is contact tracing, with the aim of establishing the agent, source, and path of infection of the disease.[7] Contact tracing work is of critical importance in preventing the spread of the disease and being able to effectively initiate and carry out health monitoring by establishing the agent and source at an early stage.[6] As part of this work, since 24 July, 5.35% of the total population have been tested as part of this work, and the proportion of cases in the country has been determined as 5.02%. In addition, the fatality rate in Turkey of 2.49%[8] is lower than the world average of 4.05% and that of countries with high death rates such as the USA (3.56%), Italy (14.3%), France (17.8%) and Iran (5.36%).9 It is thought that faster and earlier identification of possible cases by effective contact tracing over the whole country will be effective.

COVID-19 transmission is a source of psychological distress not only for the general public, but also for health care workers. [3,10,11] The growing number of diagnosed and suspected cases, the very heavy work load, the shortage of personal protective equipment, the widespread coverage by the media, the shortage of specific medications and inadequate emotional support may all cause an increase in the mental burden of health care workers.[12] Anger, anxiety, insomnia, and stress can be triggered by fear of contracting the virus, uncertainty about the pandemic, the safety of coworkers, loneliness, and high personal expectations.[10]

The support of coworkers is a concept to explain the support which comes from those a person works with under the same job description[13] and which can affect a person's perception of their work environment. Coworkers have the potential to enrich a person's work experience and their perception of the organization, and are a source of support, lightening the workload.[14] Organizational support theory can be defined as organizational values, taking account of workers' contributions and happiness. In places where workers see equal organizational treatment, support from their superiors and rewards for working well, workers will place a greater value on their institutions in return for a high level of support according to this theory, and make greater efforts to achieve the aims of the institution, showing loyalty and effort in return for material and social rewards. Belief in having institutional support not only reduces the stress of the workplace but at the same time helps to combat work-related fatigue which can lead to depression[15-17] and has positive effects on mental health by securing positive work attitudes and results.[18]

It has been found that health workers' psychosocial and mental states are affected by the pandemic[12,19-22] and that rates of post-traumatic stress disorder, depression, and anxiety are higher in primary healthcare workers who are in the closest contact with cases both in the acute and in the recovery phases.[23] Psychological problems such as stress or insomnia which may occur because of work load in health workers performing contact tracing in the field carry the risk of increasing COVID-19 related morbidity and mortality rates when reduced organization and coworker support by preventing effective contact tracing.

Materials and Methods

This cross-sectional type of study was planned with the aim of providing standardization for studies on determining anxiety levels in primary contact tracers and family health center workers during COVID-19, bringing under control the insomnia and stress which may result, and strengthening institutional ties by providing training with organizational and coworker support.

The population of the study consisted of all family health center (FHC) workers (n=211) and all contact tracer (n=104) workers in Bolu. All FHC and contact tracer workers were reached, and so there was no sampling. Three FHC workers who refused to take part in the research were excluded from the study.

Collection of research data was performed using a sociodemographic description form, the Generalized

Anxiety Disorder-7 Scale (GAD-7)[24,25] the Insomnia Severity Index (ISI)[26,27] the Organizational Support Index (OSI) and the Coworkers Support Index (CSI).[28]

Information was given online about the study, and approval to take part in the study was obtained electronically. All data collection instruments were applied online on a voluntary basis using Google Forms. The data collection process was conducted in accordance with the rules of the most recent version of the Helsinki Declaration. The study was conducted with the permission of the Ethics Committee of Bolu Abant İzzet Baysal University, No. 199, dated 22 June 2020. Participants were informed that information would be coded and that confidentiality would be maintained.

Sociodemographic Description Form: This form was created by the researchers, and recorded the participants' age, gender, marital status, title, years of work, the field of work, whether they had children, smoking and alcohol consumption, whether they had a chronic illness, their regular use of a medication, their status regarding COVID-19 and protective equipment training, their feeling of being protected during an intervention, and their anxiety compared with before COVID-19.

The Generalized Anxiety Disorder-7 Scale (GAD-7)[24]: This is a four-way Likert-type scale of seven items, scored from 0 to 3. A score of 0-4 indicates no anxiety, 5-9 moderate anxiety, 10-14 high anxiety, and 15-21 severe anxiety. Turkish validity and reliability testing were performed by Konkan et. al.[25] and the Cronbach alpha coefficient was 0.852.

Insomnia Severity Index (ISI)[26]: This is a five-way Likert type scale, with seven items scored from 0 to 4. A score of 0-7 is categorized as insomnia at a clinically insignificant level, 8-14 as lower threshold, 15-21 as clinically moderate insomnia, and 22-28 as clinically severe insomnia. Turkish validity and reliability were tested by Boysan et.al.27 and the Cronbach alpha coefficient was 0.790.

The Organizational Support (OSI) and Coworker Support (CSI) Indices[28]: These indices are five-way Likert-type scales with items scored from 0 to 5. The OSI has 12 items, and the CSI has nine. Turkish validity and reliability testing were performed by Giray and Sahin28 the Cronbach alpha coefficient was 0.930. The reliability of the scales was 0.935 for GAD-7, 0.692 for ISI, 0.954 for OSI, and 0.964 for CSI, so that all scales were reliable.

Statistical Analysis

The data was analyzed using the SPSS20 package. In addition to the Kolmogorov-Smirnov test, skewness-kurtosis coefficients were used to assess normal distribution conformity. The medians of groups that didn't have a normal distribution were compared, and the Mann-Whitney U test was used to compare two independent groups, and the Kruskal-Wallis test was used to compare three or more independent groups. Bonferroni correction was used to determine the difference between groups when the difference was significant.Correlation analysis was used for the relationship between continuous variables. Effect size was examined with Cohen's d, and effect dimension with Cohen's r. Cohen's d:0.20 was accepted as a small effect, d:0.50 as a moderate effect, d:0.80 as a large effect, r:0.10 as a low effect, r:0.30 as a moderate effect, and r≥0.50 as a high effect.[29] Independent variables in the linear regression model (enter method) in which GAD-7 was accepted as a dependent variable were ISI, OSI and CSI scores. In addition, the categoric variables of gender, having children, marital status, and tobacco and alcohol use were analyzed in the model as dummy variables, and as a result only the variables of gender (reference group: female) and having children (reference group: I have children) were found to be significant for the linear regression model ($p<0.05$ and $F_{4,307}$:106.347). In order to identify the problem of multicollinearity, the limits of VIF(Variance Inflation Factor)<10, tolerance<2, and Durbin-Watson<2.5 were checked, and the conformity of residuals to normal distribution was examined, taking skewness-kurtosis coefficients of ±1 as a base.[30] A statistical significance level of $p<0.05$ was taken as significant.

Results

It was found that 46.2% of the participants were physicians and that 53.8% were health personnel other than physicians; 66.7% were employed at a family health center, and 33.3% in contact tracing teams. Also, 65.7% of the participants were female and 34.3% were male; 75% were married and 69.2% had children; 25% stated

that they had regular medication utilization due to chronic disease, 26.6% that they smoked, and 8% that they consumed alcohol. It was also found that 89.4% had protective equipment, 93.6% had received training on COVID and 67.6% had had no difficulties in obtaining protective equipment; the anxiety levels of 61.5% of participants had increased compared with before COVID, but 81.1% thought that they were partially or fully protected during the intervention. The mean age of the participants was 36.92±8.09 years, and they had been working for 13.88±8.48 years (Table 1).

Table 1. Participants' Demographic Characteristics

		$\overline{X} \pm ss$	Median (Min-Max.)
Age		36.92±8.09	37.00 (21.00-54.00)
Years of work		13.88±8.48	13.00 (0.00-32.00)
		n	**%**
Gender	Female	205	65.7
	Male	107	34.3
Position	Physician	144	46.2
	Other (Nurse+Midwife+Health official)	168	53.8
Marital status	Married	234	75.0
	Single	78	25.0
Having children	Yes	216	69.2
	No	96	30.8
Area of work	Family Health Center	208	66.7
	Contact tracing	104	33.3
Chronic illness	Yes	62	19.9
	No	250	80.1
Regular medication utilization due to chronic disease	Yes	78	25.0
	No	234	75.0
Smoking	Yes	83	26.6
	No	229	73.4
Alcohol consumption	Yes	25	8.0
	No	287	92.0
Received training in protective equipment	Yes	279	89.4
	No	33	10.6
Received training on COVID	Yes	292	93.6
	No	20	6.1
Difficulty in obtaining protective equipment	Yes	24	7.7
	No	211	67.6
	Partly	77	24.7
Thinking that protected during intervention	Yes	118	37.8
	No	59	18.9
	Partly	135	43.3
Assessment of anxiety levels compared to before COVID	Increased	192	61.5
	No changed	98	31.4
	Decreased	22	7.1

When the anxiety levels of participants' assessed, it was found that 43.9% did not have anxiety (2.32±1.39), 29.5% had moderate anxiety (6.52±1.27), 13.5% had high anxiety (11.90±1.46), and 13.1% had severe anxiety (17.71±2.18). According to the results of ISI, 55.8% had insomnia at a clinically insignificant level (4.89±1.56), 33.7% had lower threshold insomnia (10.27±1.93), 9.3% had moderate insomnia (17.14±1.94), and 1.3% had severe insomnia (24.00±0.00). It was found that the perception of organizational support (56.4%) and of coworker support (62.5%) among the participants was above average (Table 2).

Table 2. Descriptive statistics of the scales

		n (%)	$\overline{X} \pm ss$	%95 Lower- Upper
Generalized Anxiety Disorder-7 (GAD-7)	No anxiety (0-4)	137 (%43.9)	2.32±1.39	2.09 – 2.56
	Moderate anxiety (5-9)	92 (%29.5)	6.52±1.27	6.26 – 6.78
	High anxiety (10-14)	42 (%13.5)	11.90±1.46	11.45 – 12.36
	Severe anxiety (15-21)	41 (%13.1)	17.71±2.18	17.02 – 18.39
Insomnia Severity Index (ISI)	Insignificant insomnia (0-7)	174 (%55.8)	4.89±1.56	4.66 – 5.13
	Lower threshold insomnia (8-14)	105 (%33.7)	10.27±1.93	9.89 – 10.64
	Moderate insomnia (15-21)	29 (%9.3)	17.14±1.94	16.39 – 17.88
	Severe insomnia (22-28)	4 (%1.3)	24.00±0.00	24.00 – 24.00
Perceived Organizational Support Index (OSI)		-	40.08±10.85	38.87 – 41.29
Coworker Support Index (CDI)		-	34.91±8.31	33.98 – 35.83

Examining Table 3, it is seen that for the variables of years of work, marital status, having children, drinking alcohol, smoking, the presence of someone in a risk group in the household, and difficulty obtaining protective equipment, GAD-7, ISI, OSI and CSI were not statistically significant($p>0.05$). Anxiety and insomnia levels were higher in females than in males, but their perception of team support was lower (Cohen's d: 0.65, 0.49 and 0.36 respectively). According to gender, in perception of organizational support, there was no statistically significant difference. The anxiety of physicians was lower than that of other health workers, but their perception of organizational and team support was higher (Cohen's d:0.25; 0.16 and 0.27 respectively). There was no statistically significant difference between the anxiety and perception of organizational support of FHC and contact tracing workers, but the insomnia levels of contract tracers were higher, and their perception of team support was lower (Cohen's d:0.19 and 0.25 respectively). Perception of organizational support showed no significant difference according to the presence of a chronic illness. Anxiety and insomnia were higher in those who regularly used medication, but the perception of organizational support was lower (Cohen's d:0:63, 0.45 and 0.38 respectively). Perception of coworker support did not show a difference according to the use of medication. At the same time, anxiety and insomnia levels were higher in those with a chronic illness and those using medication (Cohen's d:0.077 and 0.053 respectively). Perception of team support was higher in those who had received training in protective equipment than in those who had not (Cohen's d: 0.33), but their anxiety, insomnia, and perception of organizational support were not significant. Anxiety and insomnia levels were highest in those who did not think they were protected, but their perception of organizational and team support was the lowest (Cohen's d:0.082, 0.046, 0.091 and 0.042 respectively). Anxiety and insomnia levels were highest in those who thought their anxiety levels had risen compared with before COVID-19(Cohen's d:0.200, 0.113 respectively); there was no statistically significant difference in the perception of organizational and coworker support.

Table 3. Analysis of index differences according to demographic characteristics

	GAD-7	ISI	OSI	CSI
		Median (Min-Max)		
****Gender**	**p=0.000***	**p=0.000***	p=0.221	**p=0.000***
Female	6 (0-21)	7 (2-24)	41 (12-60)	35 (9-45)
Male	4 (0-17)	6(1-18)	44 (12-60)	36 (11-45)
****Position**	**p=0.021***	p=0.086	**p=0.048***	**p=0.002***
Physician	5 (0-21)	6.5 (1-24)	44 (12-59)	36 (9-45)
Other	6 (0-21)	7 (2-24)	41 (12-60)	35 (9-45)
****Work area**	p=0.586	**p=0.041***	p=0.324	**p=0.002***
FHC	5 (0-21)	7 (1-24)	41 (12-60)	36 (9-45)
Contact tracing	5 (0-21)	8 (2-21)	43.5 (12-60)	35 (9-45)
****Chronic illness**	**p=0.000***	**p=0.001***	p=0.134	**p=0.007***
Yes	9 (0-21)	9 (2-24)	40.5 (12-59)	34.5 (9-45)
No	5 (0-21)	7 (1-24)	43 (12-60)	36 (9-45)
**** Regular medication utilization due to chronic disease**	**p=0.000***	**p=0.001***	**p=0.007***	p=0.062
Yes	9 (0-21)	8.5 (2-24)	39 (12-58)	35 (9-45)
No	4 (0-21)	7 (1-24)	43 (12-60)	36 (9-45)
****Protective equipment training**	p=0.862	p=0.529	p=0.055	**p=0.033***
Yes	5 (0-21)	7 (1-24)	43 (12-60)	36 (9-45)
No	5 (0-21)	7 (3-24)	37 (12-60)	34 (9-45)
***** Feeling of being protected**	**p=0.000***	**p=0.000***	**p=0.000***	**p=0.003***
Yes	4 (0-21)	6 (2-21)	46 (12-60)	36 (11-45)
No	10 (1-21)	9 (3-24)	36 812-59)	33 (9-45)
Partly	6 (0-21)	7 (1-24)	42 (12-59)	36 (9-45)
***** Assessment of anxiety levels compared to before COVID**	**p=0.000***	**p=0.000***	p=0.079	p=0.252
Increased	7 (0-21)	8 (2-24)	42 (12-60)	36 (9-45)
No changed	3 (0-20)	5 (1-16)	43.5 (16-60)	36 (11-45)
Decreased	5.5 (0-17)	6 (3-17)	39.5 (18-60)	35 (20-45)

*sStatistically significant because p<0.05 ** Mann-Whitney U test *** Kruskal-Wallis test

An examination of Table 4 shows a positive correlation between anxiety levels and insomnia (Cohen's r:0.12), a moderate negative correlation between anxiety levels and organizational support(Cohen's r:0.89), and a moderate negative correlation between anxiety levels and coworker support(Cohen's r:0.89).

Anxiety was analyzed to be a dependent variable in the linear regression model (enter model) and the variables ISI, OSI and CSI as continuous measurement variables, gender, having children, marital status, smoking and alcohol consumption as dummy variables, and as a result the variables ISI, OSI, gender (reference group: female), and having children (reference group: I have children) were found to be significant for the linear regression model (F4.307:106.347). Distribution of the dummy variables conformed to the normal distribution, with VIF<10, tolerance<2 and Durbin-Watson<2.5. 58.1% of variability which may occur in anxiety can be explained by insomnia, organizational support, gender, and having children (R2=0.581). One unit of variation in insomnia will raise anxiety by 0.761 units, being female 1.521 units, and having children 1.196 units, while a one-unit increase in perceived organizational support will lower anxiety by 0.098 units. The variable of coworker support was not significant for the linear regression equation (p>0.05) (Table 4).

Table 4. Correlation and regression analysis between indices

	ISI	OSI	CSI
GAD-7	0.721	-0.404	-0.308
p value	**0.000***	**0.000***	**0.000***

Coefficients[a]

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	2.797	1.085		2.579	**0.010***
ISI	.761	.048	.636	15.989	**0.000***
OSI	-.098	.020	-.192	-4.943	**0.000***
Gender (dummy)	1.521	.439	.131	3.469	**0.001***
Having children (dummy)	1.196	.441	.100	2.713	**0.007***

Model R: 0,762 R^2: 0.581 Durbin-Watson:1.941 Residuals:±1
***Statistically significant because p<0.05**

Discussion and Conclusion

Even though health workers are focused on the struggle to save lives and see risks as a normal part of their work during the COVID-19 pandemic[31], they may overlook such critical topics as becoming infected or being the source of infection, separation from their families, burnout in the face of events which they have experienced such as the loss of a patient or a colleague, stress, or their state of psychological wellbeing. It has been determined by our study that the decreased support of the team and the institution, especially the sleep disorder, increases the anxiety on the employee and decreases the trust in the organization together with the team harmony in the practice. Anxiety which emerged in the uncertainty of the first months of the pandemic[32] was higher in females[12]; but as the pandemic advanced, it was seen that although this difference remained significant, it was decreased. It is thought that this result may have been affected by the spread of the disease and an increase in the length of time of informing the public. As well as this, perceived coworker support for women contacted in the study was low, and this may be a risk factor for anxiety. An increase in the frequency of contact with patients wears out health workers both physically and psychologically, causing high-stress levels and insomnia. In addition, while approximately 35% of health workers have experienced insomnia during the COVID-19 outbreak[10] the frequency was found 44% in our study.

Working in high-risk areas such as family health centers or in-field teams establishing contact with infected persons is a cause of widespread stress disorder.[20,33,34] However, one reason for there being no significant difference in our study between anxiety levels in family health centers and contact tracers may be that because contact tracers did not have trouble obtaining protective equipment (68%) and their training and knowledge levels were high, they approached a suspected or known contact with greater caution. Although a difference was found in one study in anxiety and insomnia between field workers and primary health workers in an outpatients' department[14] in our study, no difference was found in anxiety, although field workers had more insomnia (contact tracers:8.66±4.41 and FHC:7.79±4.67). Contact tracers' working hours may have an impact on sleeping patterns, which can lead to insomnia.Considering the seriousness of the duties of healthcare workers in the pandemic, as well as the risk of infecting their families and other relatives, it is an important source of stress.[35,36] In addition, it can be said that factors such as not being isolated in women due to their social status and domestic roles increase the depth of anxiety and this situation reduces the perception of team support. The fact that women have higher anxiety is also supported by our study.[37] A rise in coworker support for women may secure a reduction in problems of anxiety and insomnia.

Workers who receive less organizational support have a greater tendency for conflict with their colleagues and generally believe their organizations less.[16] As health workers who feel that they are valuable for the organization, their feelings of trust towards their organizations will increase, they feel that their psychosocial

needs are met.[38,39] The low organizational and coworker support for health workers can be improved by providing more frequent and specific theoretical and practical training based on position. To encourage motivation and focus, material and spiritual rewards can be planned in addition to the training. People will be more willing to put forth effort for the organization, and their bonds with the organization will be strengthened as their emotional needs, such as respect, acceptance, and support, are met in this way. As a result of the periodic furthering of individual psychological support, consistency of social support can reduce workers' need for psychosocial support.

Recommendations

Studies have shown that levels of chronic psychiatric morbidity such as depression and anxiety after trauma can appear in the long term after events such as an outbreak of disease or a pandemic.[40] At such times, it has been shown that long-term effective support and in-service training are productive. The fact that doctors have more knowledge about infectious diseases than other health personnel may be an effective factor in lower anxiety levels.[20,34]

Similar conclusions were reached in our study, and as well as providing data, training and support on a long-term, needs-based and regular basis in order to reduce anxiety and increase team support because the anxiety of heath personnel other than physicians was shown to be high, individual motivational interviews can be conducted with all health workers. Also, plans can be made to increase training on epidemic management and control in the field in the degree education of auxiliary health personnel.

Activities to reduce anxiety should be increased by better coordinating in-service training of contact tracing teams with field work; the problems experienced by primary healthcare workers should be communicated through the organizational hierarchy without delay, and solutions should be rapidly found. In addition, we feel that the lack of coworker support for health workers working in direct contact with cases at the primary level should be taken into account and team numbers should be increased to be able to manage the current situation, and that it would be beneficial to take into account the preferences and recommendations of health workers for colleagues when forming teams. In addition, teams should be given adequate rest time during their working hours.

Limitations

Our research has some limitations. First, when compared to face-to-face interviews, the intelligibility of the scope of the questions could not be assessed. Second, because the study is cross-sectional, it is impossible to determine the long-term effects of in-service training and support. Third, because of the pandemic's sudden onset, the psychological state of the individual prior to it cannot be assessed.

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References

1. Li Q, Guan X, Wu P, Wang X, Zhou L, Tong Y, et al. Early transmission dynamics in Wuhan, China, of novel coronavirus–infected pneumonia. N Engl J Med. 2020;382:1199-1207. doi: 10.1056/NEJMoa2001316
2. HSGM. COVID-19 Rehberi Genel Bilgiler Epidemiyoloji ve Tanı: T.C. Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü
3. Cheng L, Zheng W, Li M, Huang J, Bao S, Xu Q, et al. Citrus fruits are rich in flavonoids for immunoregulation and potential targeting ACE2. Preprints 2020.
4. WHO. (World Health Organization) Coronavirus disease 2019.
5. García-Iglesias JJ, Martín-Pereira J, Fagundo-Rivera J, Gómez-Salgado J. Digital surveillance tools for contact tracking of infected persons by SARS-CoV-2. Revista espanola de salud publica. 2020; 94:e202006067.
6. Salathé M, Althaus CL, Neher R, Stringhini S, Hodcroft E, Fellay J, et al. COVID-19 epidemic in Switzerland: on the importance of testing, contact tracing and isolation. Swiss Med Wkly. 2020; 150:w20225-. doi: https://doi.org/10.4414/smw.2020.20225

7. HSGM. TC Sağlık Bakanlığı Bulaşıcı Hastalıklar İle Mücadele Rehberi.
8. https://covid19bilgi.saglik.gov.tr/tr/.
9. https://covid19.who.int/.
10. Zhang C, Yang L, Liu S, Ma S, Wang Y, Cai Z, et al. Survey of insomnia and related social psychological factors among medical staff involved in the 2019 novel coronavirus disease outbreak. Frontiers in Psychiatry. Apr 2020;11:306. doi: https://doi.org/10.3389/fpsyt.2020.00306
11. TürkToraksDerneği. Mesleksel Akciğer Hastalıkları Çalışma Grubu Sağlık Çalışanlarında COVID-19 Salgını Sırasında Mesleki Riskler Hakkında Bilgilendirme ve Öneriler.
12. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA network open. 2020 March; 3:e203976-e. doi: 10.1001/jamanetworkopen.2020.3976
13. Yoon J, Lim J-C. Organizational support in the workplace: The case of Korean hospital employees. Human Relations. 1999; 52:923-945.
14. Norling LR, Chopik WJ. The association between coworker support and work-family interference: A test of work environment and burnout as mediators. Frontiers in Psychology. 2020 May; 11:819.
15. Allen MW, Armstrong DJ, Reid MF, Riemenschneider CK. Factors impacting the perceived organizational support of IT employees. Information & Management. December 2008; 45(8):556-563.
16. Al-Omar HA, Arafah AM, Barakat JM, Almutairi RD, Khurshid F, Alsultan MS. The impact of perceived organizational support and resilience on pharmacists' engagement in their stressful and competitive workplaces in Saudi Arabia. Saudi Pharmaceutical Journal. 2019 November; 27(7):1044-1052.
17. Robaee N, Atashzadeh-Shoorideh F, Ashktorab T, Baghestani A, Barkhordari-Sharifabad M. Perceived organizational support and moral distress among nurses. BMC Nursing. 2018 January; 17(2):1-7.
18. Qiu T, Yang Y, Liu C, Tian F, Gu Z, Yang S, et al. The association between resilience, perceived organizational support and fatigue among Chinese doctors: A cross-sectional study. Journal of Affective Disorders. 2020 March; 265:85-90.
19. Rajkumar RP. COVID-19 and mental health: A review of the existing literature. Asian Journal of Psychiatry. 2020 August;52:102066.
20. Kang L, Ma S, Chen M, Yang J, Wang Y, Li R, et al. Impact on mental health and perceptions of psychological care among medical and nursing staff in Wuhan during the 2019 novel coronavirus disease outbreak: A cross-sectional study. Brain, Behavior, and Immunity. 2020 July;87:11-17.
21. Chen Q, Liang M, Li Y, Guo J, Fei D. & Wang, J.(2020). Mental health care for medical staff in China during the COVID-19 outbreak. The Lancet Psychiatry. 2020 April;7(4):e15-e6.
22. Dong L, Bouey J. Early Release-Public Mental Health Crisis during COVID-19 Pandemic, China. Emerg Infect Dis. 2020 July;26(7): 1616-1618. Doi: 10.3201/eid2607.200407
23. Duan L, Zhu G. Psychological interventions for people affected by the COVID-19 epidemic. The Lancet Psychiatry. 2020 April; 7(4):300-302.
24. Löwe B, Decker O, Müller S, Brähler E, Schellberg D, Herzog W, et al. Validation and standardization of the Generalized Anxiety Disorder Screener (GAD-7) in the general population. Medical Care. 2008 Mar;46(3):266-274.
25. Konkan R, Şenormanci Ö, Güçlü O, Aydin E, Sungur MZ. Yaygın Anksiyete Bozukluğu-7 (YAB-7) testi türkçe uyarlamasi, geçerlik ve güvenirliği. Archives of Neuropsychiatry/Noropsikiatri Arşivi. 2013; 50. doi: 10.4274/npa.y6308
26. Bastien CH, Vallières A, Morin CM. Validation of the Insomnia Severity Index as an outcome measure for insomnia research. Sleep Medicine. 2001 July;2(4):297-307. doi: https://doi.org/10.1016/S1389-9457(00)00065-4
27. Boysan M, Güleç M, Beşiroğlu L, Kalafat T. Uykusuzluk Şiddeti Indeksi'nin Türk örneklemindeki psikometrik özellikleri. Anadolu Psikiyatri Dergisi. 2010 September;11(3):248-252.
28. Giray MD, Sahin DN. Algilanan Örgütsel, Yönetici ve çalisma arkadaslari destegi ölçekleri: geçerlik ve güvenirlik çalismasi. Turk Psikoloji Yazilari. 2012 December;15(30):1-9.
29. Cohen J. Statistical Power Analysis for the Behavioral Sciences: 2 Ed. Hillsdale. NJ: Erlbaum. ; 1988.
30. Büyüköztürk Ş. Veri Analizi El Kitabı: Pegem Akademi; 2015.
31. Zhang SX, Sun S, Jahanshahi AA, Alvarez-Risco A, Ibarra VG, Li J, et al. Developing and testing a measure of COVID-19 organizational support of healthcare workers–results from Peru, Ecuador, and Bolivia. Psychiatry Research. 2020 September;291:113174. doi: https://doi.org/10.1016/j.psychres.2020.113174
32. Zhang W-r, Wang K, Yin L, Zhao W-f, Xue Q, Peng M, et al. Mental health and psychosocial problems of medical health workers during the COVID-19 epidemic in China. Psychotherapy and Psychosomatics. 2020 July; 89(4):242-250.
33. Wu P, Fang Y, Guan Z, Fan B, Kong J, Yao Z, et al. The psychological impact of the SARS epidemic on hospital employees in China: exposure, risk perception, and altruistic acceptance of risk. The Canadian Journal of Psychiatry. 2009; 54(5):302-311. doi: https://doi.org/10.1177/070674370905400504
34. Maunder R, Hunter J, Vincent L, Bennett J, Peladeau N, Leszcz M, et al. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. Cmaj. 2003 May;168(10):1245-1251.
35. Sun D, Yang D, Li Y, Zhou J, Wang W, Wang Q, et al. Psychological ımpact of 2019 novel coronavirus (2019-NCoV) outbreak on health workers in China. Epidemiology & Infection. 2020;148:e96:1-6. doi: https://doi.org/10.1017/S0950268820001090
36. Saatçi E. COVID-19 pandemisi ve sağlık çalışanları. Türkiye Aile Hekimliği Dergisi 2020;24(4):172-4.
37. Güre MD, Karataş M, Özdemir HF, Duyan V. Fear of COVID-19 among healthcare workers in filiation teams: predictive role of sociodemographic, organizational and resilience factors. 2021;46(4):1459-1467. Çukurova Medical Journal. doi:

10.17826/cumj.977584
38. Tamer İ, Bük TB. Algılanan Örgütsel Destek ve Örgütsel Bağlılık Üzerine Kavramsal bir İnceleme. Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi. 2020;7(2):139-147.
39. Li M, Shu Q, Huang H, Bo W, Wang L, Wu H. Associations of occupational stress, workplace violence, and organizational support on chronic fatigue syndrome among nurses. Journal of Advanced Nursing. 2020;76(5):1151-1161. doi https://doi.org/10.1111/jan.14312:
40. Talevi D, Socci V, Carai M, Carnaghi G, Faleri S, Trebbi E, et al. Mental health outcomes of the CoViD-19 pandemic. Rivista di Psichiatria. 2020;55(3):137-144. doi: 10.1708/3382.33569