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ORIGINAL ARTICLE / ARAŞTIRMA YAZISI

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The Difficulties Experienced by Tradesmen According to the Situation of Closing Their Businesses During the Pandemic Period and Their Depression Status

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ABSTRACT

Purpose: COVID 19, which continues to have a global impact, poses many challenges to small businesses. Due to the measures taken against the pandemic, tradesmen closed their small businesses and faced many difficulties. As a result of the difficulties experienced by the tradesmen, they have been adversely affected in terms of economic, social, and health factors. Based on these situations, the study was conducted to determine the depression level of the tradesmen during the pandemic, to determine the difficulties they experienced in their own words, and to determine its relationship with depression.

Methods: The population of the cross-sectional study consisted of 1100 people working as tradesmen in the Bitlis city center. The sample of the study, 285 individuals, was reached by the simple random method. Data were collected using the "Personal Information Form" and "Beck Depression Inventory".

Results: 17.2% of small business owners have severe depression, and 37.9% have moderate depression symptoms. Small businesses stated that they experienced difficulties such as family problems, laying off personnel, and experiencing physical and mental problems during the lockdown measures. Layoffs and family problems in business owners due to lockdown measures are more associated with depression symptoms.

Conclusion: During the pandemic, the depression level of tradesmen was higher than that of the general population. Challenges, particularly family problems, have emerged that may increase the level of depression symptoms among business owners.

Keywords: coronavirus, pandemic, infectious disease, depression

ÖZET

Amaç: Küresel düzeyde etkileri hala devam eden Covid 19 küçük işlemlere pek çok zorluklar yaşatmaktadır. Pandemi önemleriyle esnaflar küçük işletmelerini kapatmış ve pek çok zorlukla yüzleşmiştir. Esnafların yaşadığı güçlükler ekonomik, sosyal ve sağlık yönünden onları etkilemiştir. Bu durumlardan yola çıkarak çalışma pandemide esnafların depresyon düzeyini saptamak, kendi ifadeleriyle yaşadıkları zorlukları tespit etmek ve depresyon durumuyla ilişkisini saptamak amacıyla yapılmıştır.

Yöntem: Kesitsel nitelikte çalışmanın evrenini Bitlis il merkezinde esnaflık yapan 1100 kişi oluşturmaktadır. Çalışmanın örneklemi olan 285 kişiye basit rastgele yöntemle ulaşılmıştır. Veriler "Kişisel Bilgi Formu" ve "Beck Depresyon Envanteri" ile toplanmıştır.

Bulgular: Küçük işletmelerin %17,2'sinde şiddetli depresyon ve %37,9'unda orta düzey depresyon belirtileri vardır. Küçük işletmeler pandemi önlemlerine bağlı kapanma sürecinde ailesel problemler yaşama, işten personel çıkarma ve bedensel problemler yaşama gibi zorluklar yaşadıklarını ifade etmişlerdir. İşletmelerde işten personel çıkarmalar olması ve işletme sahiplerinde kapanmaya bağlı ailesel problemler ortaya çıkması depresyon belirtileriyle daha fazla ilişkilidir.

Sonuç: Pandemi sürecinde küçük işletme sahibi olan esnafların depresyon düzeyi genel topluma göre daha yüksektir. Başta aile problemleri olmak üzere işletme sahiplerinin depresyon belirtileri düzeyini artırabilecek zorluklar ortaya çıkmıştır.

Anahtar Kelimeler: Koronavirüs, Pandemi, Bulaşıcı Hastalıklar, Depresyon

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When the epidemiological data of COVID-19 for 2023 are examined at the global level, it is noticed that its effects on public health continue with new cases and deaths. Globally, a total of 13.9 million new cases and more than 49.000 new deaths were reported between December 12, 2022, and January 8, 2023. There has been an increase in the number of illnesses and deaths compared with the previous month (1). This pandemic surrounding the world continues to harm people's lives and the economy. One of the groups facing the most challenges in the pandemic is business owners and employees. Businesses are experiencing great losses due to the damages brought by the pandemic, mandatory measures, and other reasons. Businesses are hesitant to take risks during this period due to the decreasing purchasing power of consumers and supply problems. Thus, there is a decrease in the number of small businesses that want to start their own business and become entrepreneurs (2).

This change in small businesses also poses challenges for employees. Businesses may lay off employees or have challenging demands from their employees (3). During the pandemic, layoffs, workplace closures, and the search for new jobs forced small businesses to change. Yet, during this period of change, they are faced with challenges in adapting to mandatory epidemiological measures. Failure to adapt to these measures leads to disruptions in maintaining the economic activities of enterprises. Those who adapt to these economic changes, both macro and micro-enterprises, overcome difficulties more easily (4). In addition to economic adaptation, social adaptation, revisions in lifestyle and working conditions, development, digital technology innovations, and alternative employment opportunities are also useful in combating the challenges of the pandemic (5, 6).

Failure to adapt to the challenges posed by the COVID-19 pandemic has also affected the health of small business owners and employees. The problem of adaptation to the pandemic and the increasing economic losses of entrepreneurs have brought not only physical problems but also mental problems. Depression, anxiety, and stress have increased in small business owners and entrepreneurs due to economic impacts (7, 8). In addition to operators, the elderly, healthcare workers, infected people, relatives of infected people, and the poor are the groups most affected by the pandemic (9, 10). Based on these situations, the study was conducted to determine the depression level of small businesses during the pandemic, identify the difficulties they experienced in their own words, and determine the relationship with depression.

Research Questions

What is the frequency of depression symptoms among tradesman in the pandemic period?

Are the difficulties experienced by tradesmen during the pandemic related to depression?

Materials and Methods

Bitlis

Bitlis province is located in the Eastern Anatolia region of Turkey. The province is situated in a mountainous region and has a high altitude. The income levels and education rates of the province's residents have not yet reached the desired standards. In addition, the family type is traditional and crowded (11).

Research Design

It is a cross-sectional study.

Population and Sample

The population of the study consisted of 1100 tradesmen working as tradesmen in the central district of Bitlis province. From the formula used when the population is known ($n = [n\ t^2\ p\ q] / [d^2(n-1) + t^2\ p\ q]$), the number of people to be included in the sample was determined to be 285. In the formula, the calculation was made according to the confidence level of 95%, the population of 1100, p=0.5, and q=0.5. In the study, 285 people were reached by a simple random method between April 12 and June 24, 2022.

Inclusion Criteria

Those who were tradesmen in the central district of Bitlis during the pandemic, who were 18 years of age or older, and who agreed to participate in the study were included.

Data Collection

Data were collected using the Personal Information Form and Beck Depression Inventory (BDI) (12). The BDI was developed by Beck et al. in 1961. The Turkish validity and reliability study of the BDI was conducted by Hisli in 1989 (13). Based on self-assessment, the BDI consists of 21 items, and each item is scored between 0 and 3. According to the scores of the participants on the scale, it is considered minimum depression for 0–9 points, mild

depression for 10–16 points, moderate depression for 17–29 points, and severe depression for 30–63 points (14). The Cronbach alpha value (internal consistency coefficient) of the BDI items used in the study was 0.861.

Statistical Analysis

In the visual and statistical analysis of the data, it was determined that they did not fit the normal distribution. Therefore, the Kruskal-Wallis H test, Mann-Whitney U test, multivariate ordinal logistic regression analysis, and Spearman correlation analysis were used for statistical analysis.

Results

Socio-Demographic Characteristics

The mean age of the tradesmen was 36 (min. 18–max. 80), the mean income was 459.70 USD (United States dollar) (min. 55.91 USD – max. 2124.47 USD), and the mean BDI was 19.01 (min. 0.00–max. 58.00). Table 1 shows the socio-economic status of the participants and the comparison of these variables with the BDI score. No significant difference was found between gender, marital status, educational status, monthly income, and BDI (p>0.05).

Table 1: Distribution of tradesmen by their socio-demographic characteristics and BDI comparison

		n	%	Median	Min-Max	Test	p
Gender	Male	236	82.8	17.00	0.00-58.00	5229.00‡	0.292
	Female	49	17.2	19.00	2.00-39.00		
Marital status	Single	102	35.8	17.00	0.00-58.00	8567.00‡	0.250
	Married	183	64.2	18.00	0.00-57.00		
Educational status	Primary school graduate	23	8.1	19.00	9.00-37.00	5.150§	0.161
	Secondary school graduate	48	16.8	20.00	0.00-51.00		
	High school	119	41.8	18.00	0.00-58.00		
	University graduate	95	33.3	16.00	0.00-50.00		
Monthly income	0-279.54 USD †	129	45.3	17.00	0.00-50.00	3.042§	0.219
	279.54 -559.07 USD	133	46.7	19.00	0.00-58.00		
	Over 559.07 USD	23	8.0	17.00	0.00-45.00		

†; USD - United States dollar, ‡; Mann-Whitney Test, §; Kruskal-Wallis Test, n; Number, %; Percentage

Table 2: The difficulties experienced by the tradesmen during the pandemic their own words and BDI comparison

Pandemic Challenges		n	Median	Min-Max	Test	p
I borrowed money from acquaintances	Yes	88	19.500	(0.00-51.00)	7419.00‡	0.052
	No	197	17.000	(0.00-58.00)		
I took loans from banks	Yes	113	18.000	(0.00-58.00)	8847.50‡	0.201
	No	172	17.000	(0.00-50.00)		
I changed jobs	Yes	27	20.000	(4.00-50.00)	2731.00‡	0.065
	No	258	17.000	(0.00-58.00)		
Physical problems arose	Yes	47	23.000	(2.00-58.00)	3701.00‡	**<0.001***
	No	238	17.000	(0.00-57.00)		
Familial problems occurred	Yes	111	23.000	(0.00-58.00)	5447.00‡	**<0.001***
	No	174	14.000	(0.00-46.00)		
I asked relatives for support	Yes	109	17.000	(0.00-58.00)	9460.00‡	0.845
	No	176	18.000	(0.00-57.00)		
I laid off the employees	Yes	40	27.500	(7.00-58.00)	3362.50‡	**0.001***
	No	245	17.000	(0.00-51.00)		

** P<0.05, ‡; Mann-Whitney Test,*

Table 2 presents the difficulties experienced by tradesmen in their own words while their businesses were closed during the pandemic and the comparison of these difficulties with the BDI level. Some of these difficulties were statistically significant compared with the BDI level. A significant difference was found between BDI and those who had family problems (<0.001), physical problems (<0.001), and those who dismissed employees (0.001) during the pandemic.

Table 3: Spearman correlation matrix between the variables of the tradesmen

	1	2	3	4	5	6
1. Experience year as a tradesman	-					
2. Average monthly income	0.005	-				
3. Number of people cared for	0.438**	-0.014	-			
4. Number of employees in the enterprise	0.058	0.193**	0.091	-		
5. Shutting down the business during the pandemic (days)	-0.063	0.186**	0.023	-0.069	-	
6. BDI	-0.016	0.090	0.117*	0.009	0.264**	-

***p<0.01, * p<0.05, BDI, Beck Depression Inventory*

Table 3 shows that there is a significant correlation between BDI and the number of days the business is closed. The increase in the number of days that businesses are closed affects the level of depression.

The Incidence of depression symptoms

Table 4 shows the depression symptoms of the participants according to their BDI scores. Severe depression symptoms were observed in 17.2% of the tradesmen, and moderate depression symptoms were observed in 37.9% of them.

Table 4: Classification of depression symptoms in participants

Symptoms	n	%
Minimal	54	18.9
Mild	74	26.0
Moderate	108	37.9
Severe	49	17.2
Total	285	100

Challenges faced by tradesmen associated with symptoms of depression

Table 5: Explanatory variables predicting depression symptoms of tradesmen

Predictive		Prediction	SE	Wald	p	Odds Ratio	95% CL	
							LL	UL
Workplace closure (Days)		0.045	0.015	9.380	0.002	1.046	1.016	1.076
I made a job change during the pandemic	Yes	0.292	0.379	0.594	0.441	1.339	0.637	2.817
	No	0*						
Physical problems arose	Yes	0.792	0.308	6.621	0.010	2.208	1.208	4.036
	No	0*						
I laid off the employees	Yes	0.931	0.328	8.036	0.005	2.536	1.333	4.825
	No	0*						
I had family problems	Yes	1.107	0.241	21.176	<0.001	3.026	1.888	4.849
	No	0*						

*CL; Confidence Interval, LL; Lower, UL; Upper, SE; Standard Error, *Reference category; response variable reference category minimum depression symptoms*

In ordinal logistic regression analysis, the categories of the dependent variable are required to meet the assumption of parallel lines. According to the Test of Parallel Lines, the parallelism condition is met (-2 log likelihood = 415.799, chi-square = 15.20, p=0.125). The model is statistically significant (-2 log likelihood = 431,008, chi-square = 57.351, p<0.001). All independent variables in the model account for 20% of the dependent variable (R^2=0.182, Cox and Snell; R^2=0.196, Nagelkerke) (Table 5).

The odds of depression symptoms are 2.5 times higher for those who laid off workers than for those who did not, and the odds of depression symptoms are 3 times higher for those who started having family problems than for those who did not. A one-unit increase in the duration of workplace closure during the pandemic increases the odds of depression symptoms by 5% (Table 5). Based on the statements of tradesmen, the emergence of physical problems due to closing the workplace during the pandemic, the emergence of family problems, the fact that business owners had to lay off workers, and the duration of the workplace closure are correlated with depression symptoms (p<0.05).

Discussion

Pandemics such as COVID-19 have psychologically affected every segment of society. While some individuals in society adapted to this new life change, others could not. Mental disorders such as anxiety and depression have increased in individuals who cannot adapt. The disruption of family communication, physical problems, and economic difficulties due to the impact of the pandemic have increased psychological problems (15). The patriarchal family structure is at the forefront in Bitlis. Tradesmen are important sources of income for the family. From this perspective, we found in our study that depression was more prominent in tradesmen affected by the pandemic.

In this study on tradesmen, the main difficulties that come to the fore are the emergence of family problems. In the ordinal regression analysis, it was observed that those who had family problems during the pandemic had a greater effect on depression. Restrictions brought about by the COVID-19 pandemic, lockdown, restriction of social opportunities, unemployment, and economic difficulties have negatively affected communication within the family (16). During the pandemic, the businesses of tradesmen were closed for a certain period of time. Another challenge faced by tradesmen during the pandemic was that they had to lay off their employees. It was observed that the tendency for depression symptoms increased in those who permanently dismissed their employees during the compulsory closure of businesses. The closure of a business, the dismissal of employees, and the bankruptcy of businesses may be due to being in the bankruptcy stage or depleting their economic resources. This may have increased the upward trend in depression. In a study conducted in the USA, the closure of small businesses during the pandemic was found to be associated with the prevalence of anxiety but not with the prevalence of depression. Reduced urban mobility and restricted access to social spaces as a result of social distancing measures have led to the closure of small businesses. Ultimately, anxiety and depression levels increased in American society (17).

Business owners stated that physical ailments arose due to the difficulties they experienced during the closure of their businesses. In our study, symptoms of depression were more common in tradesmen who stated that they had physical problems due to the pandemic. Depression may have also increased physical complaints. Physical complaints are common with depression. The most common complaints include joint pain, limb pain, gastrointestinal problems, fatigue, and changes in appetite (18).

In our study, no significant correlation was found between depression and the tradesmen's thoughts of starting another business due to the difficulties experienced during the closure of the business during the pandemic. Uncertainties such as fear and a lack of awareness of change can affect the motivation of businesses to start another business (19). The thought of starting another job may cause fear or uncertainty, but not depression.

In our study on tradesmen, the level of depression during the mandatory lockdown period was also examined. The prevalence of depression was found to be high among tradesmen. Severe depression and moderate depression symptoms were observed in 17.2% and 37.9% of the tradesmen, respectively, which is higher than the general adult population in Turkey. During the pandemic, the prevalence of severe depression symptoms in the adult population was 5%, and the prevalence of moderate depression symptoms was 22.3% (20). In a study on the Chinese general population during the pandemic, the prevalence of depression symptoms was found to be 27.9% (10).

In our study, the sociodemographic characteristics and depression levels of the tradesmen were compared. There was no significant correlation between the gender, marital status, educational status, and monthly income of the participants and depression symptoms. In a study conducted in a Turkish adult population, a significant difference was found between these variables and depression (20). In a study conducted on the Chinese population during the pandemic, it was found that income and age were associated with depression symptoms (10). Results in groups with a high prevalence of depression symptoms, such as tradesmen, may differ from those in the general population.

Conclusion

During the pandemic, it was observed that the depression level of tradesmen was higher than that of the general population. Challenges, particularly family problems, have emerged that may increase the level of depression symptoms among business owners. In a pandemic that has devastating effects on society, providing family support to tradesmen, helping them overcome economic difficulties, and counseling on innovations can contribute to overcoming difficulties. Providing tradesmen with support during the period when they experienced difficulties during the pandemic could contribute to reducing the level of depression that they experienced.

Limitations of the Study

The results of the study are about the tradesmen who have small businesses in a city center. One of the limitations of the study is that the data were collected from small business owners in a provincial center. Although the study was conducted at the regional level, it can contribute to systematic reviews. Moreover, the self-report-based nature of the data collection tools and the cross-sectional nature of the study are other limitations.

Declarations

Financial Disclosure

This study was not funded by any company or individual.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Ethical Approval

Ethical approval of the study was obtained with the decision of the Bitlis Eren University Ethical Principles and Ethics Committee numbered 22/04-2.

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Contribution of the Authors

CÖ; Contributed to the Design of the Study, Introduction, Materials and Methods, Evaluation of the Results, Discussion, and Conclusion. AI; Contributed to the Design of the Study and Evaluation of the Results.

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