

Psychological Symptom Profile of Butchers Working in Slaughterhouse and Retail Meat Packing Business: A Comparative Study

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Summary

In this study we aimed to test the hypothesis that butchers have more psychological problems than any other occupation. For this purpose, we applied SCL-90-R (Symptom Check List-90 Revised) to 43 butchers working in a slaughterhouse and 39 butchers working in meat processing or packing in supermarkets, and as a control group 82 office workers. In the research, a statistical significance between butchers and the control group in that the Global Severity Index (GSI) scores ($P<0.001$) was found. In terms of the GSI scores, there was no significant relationship between the slaughter house workers and the supermarket workers at $P<0.05$. However, there were significant relationships among the somatization, anxiety, anger-hostility, and psychotism ($P<0.01$). As a result, when comparing the two groups, butchers, especially those who work in slaughterhouses, have higher levels of psychological disorders than the office workers.

Keywords: Butchers, Slaughterhouse, Behavioral disorder, Psychological distress

Mezbaha ve Et Perakende İşletmelerinde Çalışan Kasapların Psikolojik Durumlarının Karşılaştırmalı Olarak Araştırılması

Özet

Bu çalışmada kasapların diğer meslek gruplarına göre daha fazla psikolojik problemler yaşadığı hipotezinin kantitatif olarak test edilmesi amaçlanmıştır. Bu amaçla, 43'ü mezbaha, 39'u perakende dükkan ve süpermarkette çalışan toplam 82 kasap ve kontrol grubu olarak 82 büro çalışanı ile görüşülerek SCL-90-R (Symptom Check List-90 Revised) testi uygulanmıştır. Araştırmada kasaplar ile kontrol grubu arasındaki Global Severity Index (GSI) skorları arasındaki fark anlamlı bulunmuştur ($P<0.001$). Mezbaha ve entegre tesiste çalışan kasaplar ile perakende dükkan ve süpermarketlerde çalışan kasapların GSI skorları arasında $P<0.05$ düzeyinde anlamlı bir fark bulunmazken, bu iki grup arasında da somatizasyon, anksiyete, öfke-düşmanlık, psikotizm skorlarının farklı olduğu tespit edilmiştir. Sonuç olarak kasaplar, özellikle de mezbahada çalışan kasaplar, büro çalışanlarına kıyaslandığında daha yüksek düzeyde psikopatoloji yaşamaktadır.

Anahtar sözcükler: Kasaplar, Kesimhane, Davranış bozukluğu, Psikolojik bozukluk

INTRODUCTION

According to the type of occupation, because of their work under physical or psychological negative effects, there are a lot of studies in the literature. For example, workers

working in the coal mines suffer from various respiratory tract diseases ^{1,2}. Similarly workers, working under high noise have much more common hearing problems ³ that



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have been reported by several researchers.

In terms of emotional context for instance: The kinds of works affect workers' behavioral levels. Most of the employee who work for the institutions that serve to the problematic areas such as mental health hospitals, intensive care units, nursing homes, and orphanages may develop psychosomatic disorders⁴⁻⁷

Butchers work both physically and emotionally in a negative environment. Therefore, there have been reported that butchers have a higher rate of physical disorders⁸⁻¹⁰, work accident or injuries^{11,12}, alcohol and drug use, higher absenteeism, and staff turnover^{13,14}.

Because slaughterhouse workers constantly kill animals, it has been reported that they suffer from anxiety, panic, depression, increased paranoia, a sense of disintegration, high levels of drugs, and alcohol use^{15,16}. In addition, over time, some of its employees enjoy the killing, and this situation become psychotic antisocial and statements prepared by the proposed development of the ground¹⁷ Crime rate among butchers has been found to be higher than other occupational groups^{18,19}.

While it has been reported that employees work in abattoirs and butchers in the meat packing industry suffer from physical diseases in a large number of scientific research in the literature, investigating the effects of psychological studies is very limited. In the studies which are related to the psychological aspects of the subject, almost all used the qualitative methods^{13,14,18,19}. Due to adverse working conditions, the purpose of this study is to test the hypothesis that assumes that butchers have more psychological problems than the other job groups by using quantitative method. Unlike, similar works which used qualitative method, this study used quantitative methods for testing the hypothesis. It is believed that this study can provide useable knowledge for the behavioral scientists, the administrators or the investors of this industry.

MATERIAL and METHODS

Study Design

To test the study hypothesis, three groups were formed; the first group was butchers working in slaughterhouses, the second group was butchers working in the meat processing or packing in supermarkets, and the third group was office workers as a control group. The SCL-90-R scale was applied to the three groups.

In Diyarbakir province, where 3 slaughterhouses have been actively running, we reached 51 butchers working in slaughterhouses, only 45 butchers to fill out the survey. For the agreed second group, we accessed 51 butchers working in meat processing or packing at supermarkets, only 42 butchers agreed to fill out the survey. For the third group,

as a control group office workers were accessed in the same city and we obtained 85 surveys. Finally we got 172 surveys and demographic variables. Eight surveys were excluded from the analysis due to significant lack of information thus, 164 forms were evaluated for further analysis.

Data Collection Materials

Demographic Form: This was prepared by the authors to collect demographic variables including age, marital status, and education.

Symptom Check List-90 Revised (SCL-90-R): It is a psychometric scale named for screening any psychopathologies. This is a 90 item multidimensional questionnaire to screen for a broad range of psychological problems revised by Derogatis in 1994. Each of the 90 items is rated on five-point Likert scale of distress, ranging from "not at all" (0) to "extremely" (4). Subsequently the answers are combined in the 10 primary symptom dimensions: Somatization, obsessive - compulsiveness, interpersonal sensitivity, depression, anxiety, anger-hostility, phobic anxiety, paranoid ideation, psychotism, and others. The scale provides also a global severity index (GSI) score which is an indicator of general psychological distress.

Statistical Analysis

The obtained data were analyzed by using SPSS version 17.0. Parametric variables were compared between groups with independent *t* test. Statistically significance level was set as $P < 0.05$.

RESULTS

A total of 82 butchers (43 working in slaughterhouses, 39 working in markets) and most of the office workers have been included in the study. All participants were male in gender. In terms of age, education level and marital status butchers and office workers as control subjects were similar. Their demographical variables and psychological scale results are given in *Table 1*. They were similar in terms of age distribution. More participants were married and graduated from primary school in the butchers group than office workers group. As seen from *Table 1*, butchers scored higher in all sub-scales scores and in GSI score than the control subjects.

When SCL-90-R subscale scores of butchers working in slaughterhouses were compared with butchers working in markets; the former group scored significantly higher in somatization, anxiety, anger-hostility, and psychotism sub-scales than the latter one (*Table 2*).

DISCUSSION

Butchers and office workers participating in the study were similar. When the butchers and office workers

Table 1. Comparison of demographical variables and SCL-90-R scores between butchers and office workers.
Tablo 1. Kasaplar ile ofis çalışanlarının SCL-90 ve demografik değişkenlerin karşılaştırılması

Variables	Butchers (N=82) (%)	Controls (N=82) (%)	Statistics (χ^2 or t)	P
Age				
20-30	37 (45%)	41 (50%)	1.37*	0.51
31-40	32 (39%)	25 (30%)		
41-50	13 (16%)	16 (20%)		
Marital status				
Married	62 (76%)	40 (49%)	12.55*	0.001
Unmarried	20 (24%)	42 (51%)		
Education				
Primary school or literate	59 (72%)	7 (9%)	80.57*	0.001
High school	17 (20%)	20 (24%)		
University	6 (8%)	55 (67%)		
SCL-90-R (mean±SD)				
Somatization	1.50±0.91	0.83±0.61	5.51	0.001
Obsessive-compulsiveness	1.34±0.76	0.99±0.70	3.13	0.002
Interpersonal sensitivity	1.29±0.75	0.85±0.71	3.93	0.001
Depression	1.26±0.84	0.76±0.71	4.13	0.001
Anxiety	1.09±0.80	0.59±0.57	4.69	0.001
Anger-hostility	1.47±0.97	0.80±0.83	4.74	0.001
Phobic anxiety	0.82±0.67	0.40±0.57	2.28	0.001
Paranoid ideation	1.40±0.86	0.97±0.79	3.30	0.001
Psychotism	0.99±0.70	0.64±0.76	3.03	0.003
Other	1.62±0.89	0.92±0.75	5.44	0.001
GSI	1.28±0.70	0.77±0.60	4.99	0.001

* shows χ^2 value, SCL-90-R: Symptom check-list-90 revised (* χ^2 değerini gösterir, SCL-90-R: Yeniden gözden geçirilmiş SCL-90)

Table 2. Comparison of SCL-90-R subscale scores between butchers working in slaughterhouse and working in markets
Tablo 2. Marketlerde ve mezbahalarda çalışan kasaplar arasında SCL-90-R karşılaştırması

SCL-90-R Subscales	Butchers Working in Slaughterhouse (N = 43)	Butchers Working in Markets (N = 39)	Statistics (t)	P
Somatization	1.77±0.90	1.21±0.83	2.93	0.004
Obsessive-compulsiveness	1.43±0.84	1.26±0.65	1.01	0.312
Interpersonal sensitivity	1.33±0.79	1.26±0.72	0.43	0.662
Depression	1.27±0.86	1.25±0.81	0.12	0.897
Anxiety	1.32±0.89	0.84±0.59	2.85	0.005
Anger-hostility	1.67±1.06	1.24±0.81	2.02	0.046
Phobic anxiety	0.94±0.77	0.67±0.49	1.95	0.055
Paranoid ideation	1.33±0.86	1.46±0.86	0.69	0.491
Psychotism	1.13±0.80	0.82±0.53	2.05	0.043
Other	1.73±0.88	1.49±0.89	1.18	0.239
GSI	1.40±0.73	1.14±0.63	1.74	0.085

SCL-90-R: Symptom check-list-90 revised (SCL-90-R: Yeniden gözden geçirilmiş SCL-90)

compared with, marital status and education levels, the marriage rate among butchers is higher than the office workers and the butchers' educational level was lower than the other group. Butchers have lower education levels as it was expected to be.

All the butchers' GSI scores and all the other sub-scale scores are higher than the control group. Therefore, these results supported the hypothesis that the butchers have more psychopathology. In this case, a two-way relationship may be taken into consideration. Namely, some butchers

have more psychopathology due to their job, some people with psychopathology may also have chosen the profession of butchery which is the effect and which is the cause, is unclear. In the situation it is not possible to reach conclusion.

However, it can be said there is a relationship between butchers and an increased risk of psychopathology. On the other hand, in terms of somatization, anxiety, anger hostility, phobic anxiety and psychotism, slaughterhouse workers' scores are higher than meat packing business workers. The results are consistent with the results of previous studies^{15,16}.

The results of slaughterhouse workers having higher GSI scores showed that this group needs medical help. GSI scores on the course of 1 is associated with clinically significant psychopathology. The average scores of 1.40 ± 0.73 for slaughterhouse workers, for the meat packing business workers 1.14 ± 0.63 , respectively. In addition, in somatization, anxiety, anger hostility, and psychotism scores, the slaughterhouse workers have higher scores than meat packing business. When taking into consideration the health spending and loss of labor, it can be said that the actual cost of the meat may be higher than the current cost.

Throughout history, the profession of butchery has been considered to be an unwanted job^{20,21}. During the period of Ottoman Empire, Ahi Organizations, which were a kind of job trade association, and tradesmen guild, foundations considered the job of butchery among the problematic jobs. So this organization did not want to include it in their members²². According to this organization, it was considered the profession of butchery was a bloody job and it was assumed that butchers' compassion and kindness declined over time due to their job.

In this study, there have been the highest levels of somatization and anger-hostility observed among butchers. The two psychopathologies in the above mentioned assumptions match up with the previous studies. Another indirect support for this assumption is that there have been reported high crime rates among butchers^{18,19}. On the other hand it is also known that butchers working in the slaughterhouses behave ruthlessly or they have remorse feelings from time to time¹⁴. Butchers with high somatization, depression and anxiety could be associated with remorse feelings and the brutal behavior may be associated with high levels of anger and hostility. It can be thought that these psychological problems may cause diminished workforce and productivity which eventually affect adversely the profitability of enterprises.

As a result, when it was comparing butchers, especially the ones working in a slaughterhouse, and office workers, butchers have had a high level of psychopathology. Considering butchers' working conditions, this situation can provide much usable knowledge to the behavioral scientists, the administrators or the investors in this industry.

In further studies, slaughterhouse workers occupational accidents, illness, absenteeism and turnover rates will be examined by comparing them with the other sectors.

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