Turk J Public Health 2021;19(2):129-139
Available online at: http://dergipark.gov.tr/tjph/
doi: 10.20518/tjph.824601

TURKISH JOURNAL OF PUBLIC HEALTH

ORIGINAL ARTICLE / ORİJİNAL MAKALE

Below the tip of the iceberg: A qualitative perspective of psychological and social aspects of occupational diseases

Buzdağının ötesinde: Meslek hastalıklarının psikolojik ve sosyal yönlerine niteliksel bir bakış

Tuba Usseli[a], Yesim Yasin[b]

[a] Instructor, Acıbadem Mehmet Ali Aydınlar University, Vocational School of Health Sciences, Program of Anesthesia, Istanbul, Turkey.
[b] Assist. Prof., Acıbadem Mehmet Ali Aydınlar University, School of Medicine, Department of Public Health, Istanbul, Turkey.

Received: 11.11.2020, Accepted: 19.04.2021

ABSTRACT

Objective: The inadequacy of preventative measures to combat the harmful effects of the working environment leads to circumstances where workers develop occupational diseases. Workers lose their good health and also experience other challenges in various aspects of their daily lives such as being forced to quit their jobs or showing poor performance at work. This study was carried out to observe, understand and analyse the psychological and social consequences that occupational diseases may give rise to. **Methods:** It is a quaWlitative study and involves in-depth interviews with workers who were diagnosed with occupational diseases. Interviews, that were conducted with 20 participants through the use of a voice recorder, cover both medical and legal aspects. A targeted sample, chosen to represent the full spectrum of illness, was taken from those who had received medical or legal confirmation of occupational disease. The data was generated manually by the researchers and generated through the thematic analysis technique, again, by the researchers without the use of a software. **Results:** We found that the process of diagnosing occupational disease was in itself a stressor and workers experienced negative effects on their mental health, family relationships, gender roles as well as their individual, social and daily living skills. **Conclusion:** These effects were manifested in the lives of participants suffering from occupational diseases as stigmatization, depression, social adjustment disorders, concerns about the future, fear of unemployment, impaired gender role and loss of status. The main contribution of this study to the available studies is to demonstrate the necessity to include “stigma-related information” in the diagnosis and treatment processes of occupational diseases.

Keywords: Occupational diseases, occupational health, psychological and social effects, qualitative research, stigmatization

Correspondence: Yeşim YASİN, Acıbadem Mehmet Ali Aydınlar University, School of Medicine, Department of Public Health, Istanbul, Turkey. **E-mail:** yesim.yasin@acibadem.edu.tr. **Tel:** + 90 216 500 4086.

Cite This Article: Usseli T, Yasin Y. Below the Tip of the Iceberg: A Qualitative Perspective of psychological and social Aspects of Occupational Diseases. Turk J Public Health 2021;19(2):129-139.

ÖZ

Amaç: Koruyucu önlemlerin çalışma ortamının zararlı etkileriyle mücadelede yetersiz kalması, çalışanların meslek hastalığı geliştirmelerine neden olur. İşçiler sağlıklarını kaybedebilir ve aynı zamanda günlük yaşamlarını etkileyen işlerini bırakmaya zorlanmak veya işte kötü performans göstermek gibi başka zorluklarla da karşılaşabilirler. Bu çalışma, meslek hastalıklarının yol açabileceği psikolojik ve sosyal sonuçları gözlemlemek, anlamak ve analiz etmek amacıyla yapılmıştır. **Yöntem:** Bu niteliksel bir alan araştırmasıdır. Veri oluşturmada derinlemesine görüşme tekniği kullanılmış, ses kaydı alınarak meslek hastalığı tanısı konmuş 20 katılımcı ile görüşülmüştür. Meslek hastalığı için tıbbi veya yasal onay almış olan işçiler arasından meslek hastalıklarını geniş yelpazede temsil etmek üzere bir örneklem oluşturulmuştur. Veriler, tematik veri analizi tekniği ile, araştırmacılar tarafından bir yazılım olmaksızın analiz edilmiştir. **Bulgular:** Meslek hastalığı teşhisi sürecinin başlı başına bir stres unsuru olduğu saptanmıştır. Meslek hastalığının çalışanların ruh sağlığı, aile ilişkileri, cinsiyet rolleri ile bireysel, sosyal ve günlük yaşam becerileri üzerinde olumsuz etkiler oluşturduğu görülmüştür. **Sonuç:** Bu etkiler, meslek hastalığı olan katılımcıların yaşamlarında damgalanma, depresyon, sosyal uyum bozuklukları, geleceğe yönelik kaygılar, işsizlik korkusu, cinsiyet rollerinde bozulma ve statü kaybı şeklinde kendini göstermiştir. Bu çalışmanın mevcut çalışmalara temel katkısı, meslek hastalıklarının tanı ve tedavi süreçlerinde "damgalanma ile ilgili bilgilerin" yer almasının gerekliliğini göstermesidir.

Anahtar kelimeler: Mesleki sağlık, meslek hastalıkları, psikolojik ve sosyal etkiler, niteliksel araştırma, damgalama

Introduction

One factor driving health inequality is business life. Inadequate health and safety measures in workplaces have adverse consequences not only in the form of physical disease and injuries but also in the form of psychological and social effects and human suffering. Two outcome-related key occupational health indicators are accidents at work and occupational diseases. Both contribute to the total ill-health caused by working life.[1] According to the International Labour Organization (ILO), the current hidden epidemic of occupational diseases needs to be properly recognised in order to address these issues properly.[2]

2019 ILO data revealed that 7,500 people die everyday due to unhealthy working environment, 6,500 people are being diagnosed with occupational diseases, and a million people get injured due to work-related activities.[3] As expected, the psychosocial ramifications of such a hidden epidemic are just as invisible. Despite efforts, the difficulties produced by psychological strain in the workplace and their psychological manifestations remain under-researched.

Although occupational stress and psychosocial problems have been discussed in occupational health literature, the psychosocial effects stemming from occupational diseases have not been adequately addressed.[4-7] Psychosocial problems due to work accidents, unemployment or chronic diseases have been among the main topics of interest but research on the psychosocial effects of occupational diseases due to chronic occupational conditions are very limited.[8-13]

Nonetheless, occupational diseases and accidents do have a significant effect upon the quality of life, imposing limitations on daily activities, impairing physical and psychological functioning and affecting the level of self-respect of individuals. Additionally, they result in declining levels of trust in patients themselves and those around them and have the potential to ruin the relationships in the workplace.

The lack of fitness and ill-health in the workplace can provoke stigma, produce tensions within families, impact on gender roles and cause a loss of status. Despite the widespread, significant and varied effects brought about by occupational ill-health, our knowledge on this particular topic remains woefully limited.[14] According to Dembe, the research on the psychosocial consequences of occupational injuries is in its infancy.[12]

Taking the complexity of these relationships into account, the main purpose of this study is to understand the individual, familial and social impacts of occupational diseases through analysing its psychological and social consequences. By doing so, this research aims to contribute to filling the gap in the literature which rises out of the lack of attention afforded to variety of effects caused by occupational diseases and injuries.[14]

Material and Methods

This study is a qualitative field research. This section follows the Consolidated Criteria for Reporting Qualitative Research (COREQ) guideline (Supplementary File). The data were collected through in-depth interviews. Before commencing the project, the study was registered with the Ethics Committee of Acibadem University, and the required ethical approval was obtained (Date: 12/11/2015; No: 2015/13/5).

All of the interviews were conducted by the researcher who was working on a master's thesis in the Occupational Health and Safety Program at the Institute of Health Sciences at Acıbadem University. The researcher, who is a woman, had previously been interviewed in a qualitative field study on "Violence Against Physicians" and conducted in-depth interviews herself prior to this research. She did not have any information about the participants, except that they had medical diagnoses due to occupational damage before starting the research. Likewise, the participants did not have any information about the researcher, except for the purposes of their research. The principal researcher conducted the interviews. The interviews were carried out at the Istanbul Occupational Diseases' Hospital after obtaining the necessary permissions from the Istanbul Health Directorate. The participants had received a medical diagnosis of occupational disease and received legal recognition after completing any health insurance process. The interviews were conducted in 2016 for five months.

The Health Board of Istanbul Occupational Diseases Hospital was consulted and the registration data of patients in the hospital were used in sampling. To reflect the variety of diagnosis, the sample was selected from among those who were hospitalized in this hospital due to occupational disease, who were previously hospitalized, who were diagnosed with occupational disease, who were under follow-up, and who received different disease diagnoses. The purposeful sampling technique was used to identify participants without discrimination of age and gender, with maximum diversity in mind. (Table 1). Apart from the individuals accessed through the hospital, the sole female patient in the study was contacted through a doctor who diagnosed the occupational disease of the patient. She was interviewed in the same hospital as the rest of the participants. She was noted to be of particular value for this study because almost all of the other occupational disease patients were men. Thus, a total of 27 participants were contacted. The participants were interviewed face-to-face.

Three individuals declined to be interviewed. Two of those were individuals with severe hearing loss who were particularly nervous about speaking to people. The other potential informant, who had been diagnosed of silicosis 13 years ago, declined the interview by stating, "I have been in the hospital countless times and nothing much has changed. What's going to happen if I meet you? Am I going to get better? What's in it for me?". Thus, a total of 24 in-depth interviews were able to be held. All of the interviews were conducted in the hospital. For those patients who were lying down in bed, the interviews were done on the ward or in a health committee meeting room within the hospital upon the consent of other patients and hospital administration. For one meeting, an informant who was diagnosed with silicosis in the previous month and had a high level of anxiety was accompanied by his brother in the meeting. The brother was present throughout the interview but, other than providing some reminders about dates and times, did not get involved in the interview itself. The informant felt the need to seek approval for what he was saying, asking to his brother repeatedly, "Am I saying the right thing?". His brother explained after the interview that the man had a low level of intellectual ability, was overly obsessed with his disease and felt anxious. He stated that they always went to meetings together for these reasons.

A demographics questionnaire, together with semi-structured interview guide, was utilised. The three initial interviews were pilot interviews which were included in the analysis. Upon the pilot interviews, the following sub-headings were added to the semi-structured interview guide: "exposure to colleagues", "information-sharing with colleagues", "being fired and the fear of remaining unemployed", "witnessing or having an accident at work" and "forming a worker's union".

Before each interview, the principal researcher explained the purpose of the interview and obtained the consent to proceed. During the interviews, aliases that the participants chose were used. The interviews were recorded with a voice recorder upon the consent of the participants and were afterwards transcribed verbatim and analysed using grounded theory approach. For some interviews, the principal researcher took notes of observations relating to the participants at the end of the interview. The interviews lasted between 25-55 minutes.

Three recordings (cases related to hearing loss, occupational asthma and exposure to solvents) were deleted due to corruption with a computer virus. Notes from one of these deleted interviews (the case of occupational asthma) were included in the data analysis. Three individuals suffering from lead poisoning from the same workplace were interviewed upon loss of data. Only one case, where the individual's disease progressed, was included in the analysis.

Out of 27 individuals who were contacted between January and May, 24 individuals participated in the interviews. From these 24 interviews, 20 individual interviews were sufficient to reach data saturation and the present study was produced based on these interviews. Transcribed interviews were not altered either for the sake of the participants or for study-related reasons. The participants were not given feedback related to the research.

Both authors worked on the transcriptions. General notes taken during the interviews were included in the analysis. The themes to be included in the data analysis were clarified in advance. The principal investigator coded the themes and the second author went through all the codes and added several sub-themes emerged during the pilot interviews. The findings related to gender roles were created afterwards in the data analysis were granted special significance. The data were manually analysed and generated by the researchers without using any software.

Result

The demographic characteristics, work environments and the details on occupational diseases are set out in Table 1 and the results are presented according to the themes.

The work environments and factors that caused the occupational disease occupied an important place in the findings. For sufferers, the reason why they became ill is as important as their disease. Long business hours, shift system, production and time pressure overwhelmed safety precautions and made workers sick. They expressed both anger and sorrow when discussing their work environments. Workers are fully aware that they would not have developed any disease if the necessary precautions had been taken and audits had been performed.

Only four of those interviewed had received legal recognition for their disease (Table 1). Indeed, the whole legal process itself constituted one of the major factors influencing the suffering of these individuals, involving a process in which they were constantly subject to accusations of lying and felt humiliated.

Table 1: Demographic details, work environments and range of diseases

Profile of patients	Categories	Number
Age	30-39	10
	40-49	6
	50-59	4
Sex	Female	1
	Male	19
Educational level	Illiterate	1
	Elementary school	7
	Junior high school	3
	High school	3
Average duration of working life	20.05 years	
Shortest period of working	10 years	
Longest period of working	42 years	
Length of working day	8 hours	11
	10 hours	2
	12 hours	5
	More than 12 hours	2
Shift system	Yes	18
	No	2
Medical diagnosis	Musculoskeletal disorder	11
	Hearing loss	2
	Polyneuropathy	1
	Lead poisoning	2
	Occupational asthma	1
	Silicosis	6
Legal recognition of diagnosis	Achieved	4
	None	16
Occupational injury	Yes	10
	No	10

Fear of unemployment

The study participants wanted to work and receive treatment, but when they received a medical diagnosis, the employers were looking for an opportunity to lay them off, whilst the workers themselves feared losing their jobs and being unable to work once they had such a diagnosis (70% of the participants feared the disease). They seemed to be trapped in the paradoxical situation of needing to preserve their livelihood at the expense of their well-being. These quotations describe how workers view what they have been through:

> *"Looking at it like that, it plays with your mind. I've taken loads of nerve pills. I've got doctor's notes. I mean, you are a mess psychologically. This is an age of surviving financially. You run the risk of both wrecking your health and becoming jobless..." (Male, 51, Polyneuropathy, hearing loss, musculoskeletal disorder)*

They also pointed out that some individuals, fearing this, felt unable to go to hospital, even though their bodies were being crushed by labour that is more suitable for robots to perform. One of such workers whose bodily pain is unbearable due to performing repetitive tasks explains the situation as follows:

> *"There are machines, assistive robots that can hold the parts for you. They don't let us use them because they say it slows down production. When there is pressure to work fast and do many things, you get backache, neck pain, knee pain, aching arms and painful wrists and ankles. There are some people in the workplace who cannot work up the courage to go to the occupational diseases' hospital. They are worried about being sacked and remaining unemployed." (Male, 40, Musculoskeletal disorder)*

A worker explains how he feels useless due to his illness preventing him from continuing his job:

> *"They put you aside like a broken toy. They make use of you and then, dump you when you break down." (Male, 39, Occupational asthma).*

Limitation of daily activities

Diseases were responsible for the difficulties experienced by the patients in both working and daily life. Those with hearing loss reported frequent experience of communication and safety issues. Another individual stated that he had continued to work for a prolonged period with an elevated level of plasma lead because the results of his regular check-ups had been withheld from him. Despite receiving therapy, he stated that his muscle and joint aches continued and he was using a crutch due to pain, and he was regarded as a disabled person when he took public transport. One subject, who was a welder and had a polyneuropathy, explained that he had injuries all over his body due to sensory loss. When asked about the most basic domestic tasks, e.g. carrying a shopping bag, the individuals suffering from musculoskeletal disorders all commented, with tears in their eyes, that they could not perform domestic tasks anymore. They also described the difficulty of sleeping at night due to pain.

Reshaped gender roles

Difficulties were not limited solely to loss of function, but also involved a loss of prestige in society. The vast majority of the male participants were unable to fulfil the roles expected of them, and this caused significant pressure leading to loss of status both within the family and beyond, depression and stigma. For these individuals, being male entailed being the breadwinner, doing their duty as a father and appearing powerful in the eyes of women. The chronic pain that accompanied many musculoskeletal conditions precluded the sufferer from every aspect of the male role. The "husband's duty" and being a "complete man" was how they described their sexual lives and it was adversely affected by the situation, and their authority within the family was called into question.

The sole female interviewee attributed her difficulties to gender role as a woman. Whilst affirming that her husband was of great help to her in daily chores, she expressed difficulties in conducting tasks such as cooking, washing, and cleaning which are considered as "women's work". "I have to take care of these. I am a mother and I have a husband. I am the woman of my house."

A worker explains how he and his wife ended up almost in the divorce:

> *"Now think about it, what would you say? What would you think if you felt only half-complete? What would your spouse say if you were half-missing? You're a woman, too (he is asking the principal investigator). You*

would want your husband to be like a lion in your eyes. If he is only half-complete... People always want someone who is all there. Loads of times we have been at the brink of getting divorced." (Male, 51, Polyneuropathy, hearing loss, musculoskeletal disorder)

…and they talked about how things were frayed in the family due to changing gender roles:

"When you feel like a useless father to your kids at home, a useless husband to your wife... and alongside that, if you are continually trying to prove something...well, it really does your head in as a result. There's a distance between us now, sadly. When I was at work, my priority was my family, but now my priority's my health. I had to put them in second place. Erm...all this has worn away at my family." (Male, 34, Lead poisoning)

Stigmatization

The number of individuals who thought or felt excluded or were looked down upon was rather high. Some 75% of the participants said they felt stigmatised by society as a "cancer victim", "tuberculosis sufferer", "patient", "trickster", "cripple", "disabled", "handicapped"," incompetent", "crazy", "half-person", "deficient" or "guilty" or that they considered themselves to be so.

The majority of participants said that they were more intolerant, fragile, sharp-tongued, suspicious, pessimistic and untrusting as a result of their disease. One of the most frequently encountered accusations was of "faking it". Most said they had been accused by employers or colleagues of escaping from work or malingering to get easier tasks, and thus, they experienced exclusion and the systematic increase of psychological pressure.

Some reflections of the workers' perspective include:

"Of course, people now look down on us even though they smile to our faces. You feel humiliated. Getting left out happens. There are people who just think there's nothing wrong with you. They reckon you are acting sick just to get easy work." (Male, 42, silicosis, musculoskeletal disorder)

"Pray to God nobody faces the same. This has been very hard. They say things like 'You're a cripple', 'who the heck are you?'. It makes you feel bad. Sometimes my daughter and family even say it. To be honest, it really gets you down." (Male, 38, silicosis)

Depression

65% (n=13) of all participants stated that they were depressed due to inability to work, chronic pain and their disease, and were receiving support in the form of medication or psychotherapy or both. Two individuals additionally carried a diagnosis of adjustment disorder with depression in addition to their occupational disease.

One patient with silicosis showed obvious signs of depression by sobbing throughout the interview.

"Of course, it affects your psychology. This has been a really difficult time for us. You know... They've always backed me up, my children, you know, my family, my wife. They took it all on the chin. These are hard things...erm... you just can't put it into words...I can't do it... (trails off). Some things are hard, can't be put in words (weeping)" (Male, 42, silicosis and musculoskeletal disorder)

Three individuals stated they had thoughts of suicide and one had attempted suicide:

"Many times, I was ready to hang myself because of the psychological pressure at work. Why should I lie about it? I fixed a rope up on a crane. I had got to that state." (Male, 38, musculoskeletal disorder)

Those participants who were under medical supervision and taking medication now felt they were stigmatised as "crazy":

"I had a total breakdown. I haven't recovered since then. I still don't have much trust in myself. I never used to be like this. It's like you'll never get out of this situation. Other people tell me to stop acting ill, and make me feel like I'm the guilty one. I'm the patient, I'm the victim, but also I'm treated as the guilty party." (Female, 55, musculoskeletal disorder).

Besides stigmatization, workers with silicosis also deal with a depression due to their incurable disease:

"This isn't one of those diseases where you can recover, that much we know, and there is no treatment. Now think about how that affects someone's psychology. You have jumbled feelings. Like, when I die, what's going to happen to the loved ones I leave behind? You have no idea. You don't even know what will happen to you. The doctor tells you there's no treatment, and gives you nothing to take for it. He doesn't tell you: "Eat this. Avoid that". He just tells you to have some clean, fresh air. How would your psychology be? - that's what I'm asking." (Male, 43, silicosis)

All the interviewees stated that their view about the future tended to be pessimistic and they felt unable to make plans. Many had surrendered to their disease, felt like they were unwanted and unneeded and had neither hope nor drive to seek their rights. Whilst the feeling of giving in to death is a key finding amongst the patients, they stated that their biggest loss was to never recover, never go back to how they were, to be incapable of working and not to see their families again.

Workers' perceptions are as follows:

"It's like this; I've got no hope about the future. I just go wherever life leads me, it's not clear, is it, I might die any day. Who knows? I mean, now there's no-one defending us, speaking up on our behalf. Nobody's campaigning for our rights either. What can you do to fight against it, all by yourself? How will I get what I deserve from the state? If you scream, they'll just lock you up and show no pity, no matter how much you wail." (Male, 43, silicosis)

"Having a permanent injury, being unable to work, not to be able to do my bit for my family, with the things I need to do increasing all the time and me quite unable to do anything since I'm all tied up in this situation, those are my issues. It's not about having to retire or anything like that. Whether I want it or not, this has really finished me off psychologically. Even I have no idea where I can turn." (Male, 34, lead poisoning)

Discussion

Statistics were stressed to be inadequate in revealing the true costs of occupational accidents and diseases since the problem is major in its nature and the ability to exactly identify an occupational risk and diseases associated with it is limited.[13]

This research, which was undertaken to understand the psychological and social effects of occupational diseases, shows that the experiences during and after the diagnosis have significant effects on mental health, relationships with family members, and individual and social life skills. The fear of remaining unemployed, stigmatisation, depression, social adjustment disorders, desperation about the future and feeling abandoned were all mentioned many times by study participants. The lengthy and complex formal process is seen as negative as the disease itself in its effect on social and work-related motivations.

Dembe conceptualized the consequences of work-related diseases/injuries as a combination of the characteristics of individuals, their jobs, and their social milieu. He grouped the contemporary research related to factors influencing psycho-social consequences of occupational diseases/injuries into eight categories: compensation experience, medical care experience, domestic activities, psychological responses, stress, occupational functioning, available social support, and social justice.[12] The compensation process is also closely linked to the psychological condition of injured workers as explained by Lippel and Collie et al.[15-16] The process of compensation involves the acknowledgment of the illness or injury as a work-related outcome, which involves many resourceful actors such as doctors, detectives, lawyers, judges, social workers, employers, and the like. The worker, on the other hand, must prove the illness or injury, which deepens the suffering of the worker.[15]

The results reveal that occupational disease sufferers have lost more than their ability to work – their ability to contribute to family life is also gone. Those with musculoskeletal disorders, in particular, have trouble in climbing the stairs, carrying shopping bags, holding a child in their arms or putting things away, and so on. Senthanar et al. touched upon the repercussions of occupational injuries on the family and daily activities of the individual mostly conducted for and around the family.[17] The respondents in this study also indicated that they were permanently affected by the injury in terms of their fulfilment of daily tasks in and around the home, and the full extent of this inability may amount to problems within the family too. Traditional gender roles and familial arrangements assign men the task of being the breadwinner and women that of feeding and caring for the children.[18] Employees with an occupational disease forfeit the concept of "masculinity" associated with their role in this context. From our research, it emerges that the "duty of a husband" and "being a complete man", which are terms referring to sexual lives, are affected by the situation, and men cannot preserve their status and authority within the family. Even interviewees who said they received close support from their family stated their marriages were rocked by this situation and they often reached to the point of divorce. Furthermore, according to Beyan et. al., the experiences of the patients with occupational disease diagnoses within and around their family may negatively influence the patients' perception of themselves as "useless" or "half-man", therefore, internal stigmatization.[1]

Those workers who have had their health damaged also fear the loss of employment. Fear of being unemployed has a significant negative impact on mental health, as other research demonstrates.[19] The results of a recent study on the psychological consequences of unemployment reveal that only 5.7% of unemployed participants did not endure symptoms of anxiety, and higher anxiety scores correlated with individuals' coping tactics of negative kind such as "negation strategies, self-distraction, self-blame, disconnection, and substance use".[20] Those who lose their jobs often experience decreased self-confidence, increased depression, have higher levels of stress, reduced expectation from life, have an overall decrease in health and well-being.[21] Chin et al. investigated the overall perceived quality of life after occupational injury.[22] The results exhibit that changes in physical appearance led to a downgraded physical and psychological perception in the quality of life. Individuals who could not hold a stable job and income were less satisfied as opposed to those who could secure stable employment after an injury. From the employer's standpoint, those with occupational diseases are considered "imposters". Lippel states that employees with occupational health problems report being prone to stigmatisation and being "treated like criminals", especially during the compensation process.[15] According to Beyan et. al., individuals with suspicion of occupational disease may wait as long as possible in order to be not diagnosed with occupational disease which can lead them to being fired and the inability to find another job.[1] To avoid being jobless or being stigmatized in the workplace, the individuals with occupational diseases try to do anything they can to hide themselves.[1]

Goffman defines stigma as "an attribute that is deeply discrediting", leading to an individual's being disqualified from the full social acceptance.[23] Stigma can be either "enacted", which implies discrimination by others, or "felt", which denotes an internalised sense of shame and blame that is mostly accompanied by a fear of being discriminated against. According to previous research, patients with chronic health problems can be subject to more stigmatisation compared to patients of temporal health conditions.[24] The stigma endured by people with chronic conditions is multifaceted. Research emphasises how, owing to the suffering being both invisible and immeasurable, sufferers are subject to stigmatisation from a variety of sources, including employers, physicians, workmates, neighbours and family members. Stigmatisation from these sources appears in the form of "suspicion" or "distrust". In our study, the participants were stigmatised in their environment by being viewed as "deficient, handicapped, inadequate" and by employers and colleagues as wanting to escape from work or receive compensation by "malingering and lying". It is not yet fully clear if this type of stigma has unique characteristics that differ from other types of health-related stigma. We suggest that this point requires further investigation.

We have seen that several stigma-related questions can be beneficially added to the standard occupational history-taking questionnaires. Setting up a contact point to encourage people who suffer from stigma due to any chronic occupational condition to ask for help is another potential action to be taken. We also believe that the inclusion of discussion of "stigma" in undergraduate medical curricula would raise awareness among medical professionals at an early stage in their careers. Current research contributes to the literature by pointing out to practical changes that needs to be made in relation to "stigma-related information" in the diagnosis and treatment processes of occupational diseases.

The findings both in the literature and in this research point to a vicious cycle that can be transformed into an easier and more positive process for any worker who has already been harmed by the negative effects of work. We believe that there should be a way to break this vicious cycle and protect physical and mental health of the workers. Those who enact the law are responsible for reviewing and guaranteeing the international agreements stipulating that all workers have the right to dignified work under protective measures and safe and healthy conditions. The state has the power to ensure that the disease itself and its aftermath are dealt with in a dignified manner, and its attention to the matter and resolution will determine the attitude of employers.

In addition, the support and awareness-raising actions of civil society organisations regarding this topic would contribute immensely. It is also vital that more academic or social research are conducted in this area which focus on the "human suffering" related to occupational diseases/injuries in addition to ensuring that occupational diseases and related deaths are included in the statistics.

The fact that all of the interviews took place in the hospital environment and the high number of study participants diagnosed with work-related musculoskeletal disorders can be considered as limitations of this study. The results of this study might have been different if the interviews were conducted outside the hospital i.e. the participants' own environment. It is known that pain and functional limitations caused by musculoskeletal disorders contribute to the psychological complaints of individuals.[25,26,27] The fact that half of the participants were selected from those diagnosed with work-related musculoskeletal disorders can be seen among the limitations of this study.

Acknowledgment

The authors would like to thank Professors Sibel Sakarya and Nadi Bakırcı for their critical reading of the manuscript and constructive comments. We are also grateful to Professor İnci User for her valuable suggestions.

Ethical Declaration: The research was approved by the Ethics Committee of Acibadem University with Decree No: 2015/13/5 on 12/11/2015.

Financial Support: The current research was conducted without funding support

Conflict of Interest: The authors do not report any conflict of interest.

References

1. Beyan A, Demiral, Y, Erdal S. Stigma toward worker with occupational diseases: A Qualitative Study. Anatol J Family Med 2020;3(1):31–39
2. ILO. The Prevention of Occupational Diseases. https://www.ilo.org/safework/info/WCMS_208226/lang--en/index.htm. Published March 25, 2013.
3. ILO. World Day for Safety and Health at Work 2019. https://www.ilo.org/safework/events/safeday/lang--en/index.htm Accessed March 26, 2021.
4. Drenth PJD, Wolff CJ, Thierry H. A Handbook of Work and Organizational Psychology: Volume 2: Work Psychology. Hoboken: Taylor and Francis; 2013.
5. Nieuwenhuijsen K, Bruinvels D, Frings-Dresen M. Psychosocial work environment and stress-related disorders, a systematic review. Occup Med. 2010;60(4):277-286.

6. Backé EM, Seidler A, Latza U, Rossnagel K, Schumann B. The role of psychosocial stress at work for the development of cardiovascular diseases: a systematic review. Int Arch Occup and Environ Health. 2011;85(1):67-79.
7. Beehr TA. Psychological Stress in the Workplace. New York: Routledge; 2015.
8. Takala J, Hämäläinen P, Saarela KL, et al. Global Estimates of the Burden of Injury and Illness at Work in 2012. J Occup Environ Hyg. 2014;11(5):326-337.
9. Sorensen G, Landsbergis P, Hammer L, et al. Preventing Chronic Disease in the Workplace: A Workshop Report and Recommendations. Am J Public Health. 2011;101(S1).
10. Cottini E, Lucifora C. Mental health and working conditions in European countries, IZA Discussion Papers, No. 4717, 2010. Institute for the Study of Labor (IZA), Bonn
11. Tefft N. Insights on unemployment, unemployment insurance, and mental health. J Health Econ. 2011;30(2):258-264.
12. Dembe AE. The social consequences of occupational injuries and illnesses. Am J Ind Med. 2001;40(4):403-417.
13. Rushton, L. The Global Burden of Occupational Disease. Curr Envir Health Rpt. 2017;4:340-348.
14. Kim, J. Depression as a psychosocial consequence of occupational injury in the US working population: findings from the medical expenditure panel survey. BMC Public Health. 2013;13:303.
15. Lippel K. Workers describe the effect of the workers' compensation process on their health: A Québec study. Int J Law and Psych. 2007;30(4-5):427-443.
16. Collie A, Sheehan L, Lane TJ, Iles R. Psychological Distress in Workers' Compensation Claimants: Prevalence, Predictors and Mental Health Service Use. J Occup Rehabil. 2019;30(2):194-202.
17. Senthanar S, MacEachen E, Lippel K. Return to Work and Ripple Effects on Family of Precariously Employed Injured Workers. J Occup Rehabil. 2020;30(1):72-83.
18. Basbug G, Sharone O. The Emotional Toll of Long-Term Unemployment: Examining the Interaction Effects of Gender and Marital Status. RSF. 2017;3(3), 222-244.
19. Reichert A, Tauchmann H. The Causal Impact of Fear of Unemployment on Psychological Health. SSRN Electronic Journal. 2011.
20. Navarro-Abal Y, Climent-Rodríguez JA, López-López MJ, Gómez-Salgado J. Psychological Coping with Job Loss. Empirical Study to Contribute to the Development of Unemployed People. Int J Environ Res Public Health. 2018;15(8):1787
21. Tcherneva, Pavlina R., Unemployment: The Silent Epidemic. Levy Economics Institute, 2017, Working Papers Series No. 895
22. Chin W-S, Guo YL, Liao S-C, et al. Quality of life at 6 years after occupational injury. Qual Life Res. 2017;27(3):609-618.
23. Goffman E. Stigma Notes on the Management of Spoiled Identity. Englewood Cliffs: Prentice Hall; 1963.
24. Lee S-M, Lim LC, Koh D. Stigma among workers attending a hospital specialist diabetes clinic. Occup Med. 2014;65(1):67-71.
25. Vargas-Prada S, Coggon D. Psychological and psychosocial determinants of musculoskeletal pain and associated disability. Best Pract Res Clin Rheumatol. 2015;29(3):374-90.
26. Karels CH, Bierma-Zeinstra SM, Burdorf A, Verhagen AP, Nauta AP, Koes BW. Social and psychological factors influenced the course of arm, neck and shoulder complaints. J Clin Epidemiol. 2007;60(8):839-48.
27. Meints SM, Edwards RR. Evaluating psychosocial contributions to chronic pain outcomes. Prog Neuropsychopharmacol Biol Psychiatry. 2018;87(Pt B):168-182.