Research Article

Assessment of anxiety levels for Heathrow Airport workers after Covid-19 pandemic situation

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Abstract

Objectives: The worldwide spreading of Covid-19 and the serious side effects associated with have pushed the scientist to study the several challenges produced after the end of the pandemic. Emotional health problems that airport workers have progressed after Covid-19 especially due to the high contact with people from different nationalities. The purpose of this research was to examine the level of anxiety of the selected population in the association with several factors like gender, age, and other demographic factors.

Materials and methods: A 214 workers from Heathrow airport with 113 females and 101 males and with age range 20–50 were selected to the study. Different demographic factors were examined to see its relation with anxiety levels that resulted from Self-Rating Anxiety Scale (SAS). SPSS 28x was used to perform different statistical analysis test on the collected data.

Results: Gender, experience, salary, and education were found to affect the level of anxiety significantly with a *P*-value lower or equal to 0.05 at confidence interval of 95%. Males were found to exert higher percentage of anxiety symptoms when compared with female. While salary above or lower than 30000$ was found to have a similar percentages and effect. On the other hand, experience played an important role to reduce anxiety, while education have increased the risk of anxiety.

Conclusion: Different authorities and work locations including airports should be taking in consideration the anxiety after the end of Covid-19 pandemic to reduce the serious clinical outcomes associated with anxiety.

Keywords

Introduction

Job related stressors has been an attracted subject for researchers and practitioners due to its correlations with several health outcomes and job performance on the individual (Kelly et al. 2020). Thus, job related stressors have been determined as one of the most important challenges in either human resource managements or in health sectors (Boswell et al. 2004). Nowadays, the international tourism has been much easier due to the reduction on the travel coast and the existence of the low fare flights (Miyoshi and Rubio Molina-Prados 2022). As a result, an increase in the interaction between airports workers and travelers have been established which can be a main job-related stressor for airports workers (Hu et al. 2017; Görlich and Stadelmann 2020). In the present, Covid-19 virus speeded all

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over the world since the first few days of March in 2020 throw a minimum contact between patients has led to a serious job related stress especially for workers with a high contact with individuals (Görlich and Stadelmann 2020). Thus, WHO has pushed the health sectors and different working places leaders to reduce the stress and phycological distress associated with the contact between workers and individuals (Petzold et al. 2020; Jaber 2023b). Airports workers are the most people engaged with different individuals from different countries and cultures as airplanes are the most common and the easiest way of travel. In addition to the high contact with individuals, the additional responsibilities, working hours, the lake of protective gears, the absent of media awareness, and the lake of mental support, they are under massive mental challenges (Tuchen et al. 2023). Subsequently, London Heathrow airport is considered to be one of the most busiest airports in the world as its handled around 75.7 million passengers in 2016 (Stacey et al. 2020). Thus, airport workers at Heathrow airport are one of the most workers been under pressure either through or after Covid-19 pandemic. In this study, a cross sectional sample of Heathrow Airport workers have been selected to evaluate the level of anxiety on airport workers based on several demographical factors using different statistical tests through SPSS program.

Materials and methods

Study participant selection

This survey was carried out in Heathrow airport, London, United Kingdom in different terminals. The study was performed on different people with different duties inside the airport. This research involved 214 workers 113 females, and 101 males with ages range between 20–50 years old. The airport workers participated were found to work as, police, help desk, check in desk officers, free zone market cashers, and cleaners. Martial status, experience, nationality, and salary were also taken in consideration as a factors with a possible effect on the level of anxiety for airport workers. All participants had the option to provide an acceptance to procced in the study and all questionaries' responses were anonymous.

Study design

A self-detailed survey was used and incorporated with a cross-sectional clinical examination was used with the selected sample. The social and demographical information's from the airport workers was obtained. The level of anxiety was estimated using approved clinical survey and coring framework published before (Alboghdadly et al. 2022).

Self-Rating Anxiety Scale (SAS)

To measure the level of anxiety, the Self-Rating Anxiety Scale was used with airport staff. (Olatunji et al. 2006). SAS survey contain 24 different items used to evaluate the anxiety feelings and mood over a period of 7 days as pub-

lished before (Vigil-Colet et al. 2008; Alboghdadly et al. 2022). A 1.25 was increased to the score of 20 with workers showing higher degree of anxiety (Olatunji et al. 2006).

Statistical analysis

Different statistical analysis was performed to the collected data chi-square, and Spearman's tests with 95 confidence intervals (CI), to obtain the differences between different categorical factors. While the intermediary impacts of factors were analyzed and statistical graphs were produced using IBM SPSS 28x obtained from IBM Corp., Armonk, NY, USA.

Ethical approval

The ethical committee approval was obtained from the Ethical Committee of Middle East University, Amman, Jordan (approval no. 2022.43).

Results

Sample distribution

According to the data collected and presented in Fig. 1, an approximately equal distribution between females and males and experiences were found to be participated in the study which reflect the balance distribution workers inside Heathrow Airport. The number of people with UK citizenship were much higher than the number of people without UK citizenship. A lower number of people works as a help desk officers followed by free zone market cashier, and check in desk officers, followed by cleaners and police officers respectively.

Statistical analysis

According to the statistical analysis of the collected data and presented in Tables 1, 2, workers gender was found to be a significant factor in the level of anxiety for the workers. The P-value in both Spearman's test and chi-square test were found to be 0.006 with X^2 of 7.466 at 95 CI. It was found that around 70 of males were affected with Covid-19 and had post anxiety levels of more than 40 and only 30% were found to have anxiety level of less than 40. On the other hand, an approximately equal percentages of females were found to exert a level of anxiety higher or lower than 40. Worker's nationality as a factor was found to exert no significant effect on the level of anxiety in both Spearman's and chi-square test. According to the results, people with UK citizenship were found to be more affected with Covid-19 and with higher percentage of higher level of anxiety greater than 40 of around 63.6%. Similarly, age and martial status were found to be with no significant effect on anxiety level associated with working in Heathrow Airport with a P-values of 0.08 and 0.196 according to Spearman's test and 0.21, and 0.195 according to chi-square test respectively. According to the sample, most of the workers were young with ages between (20–29) years old. All ages levels were found to exert a closes percentages
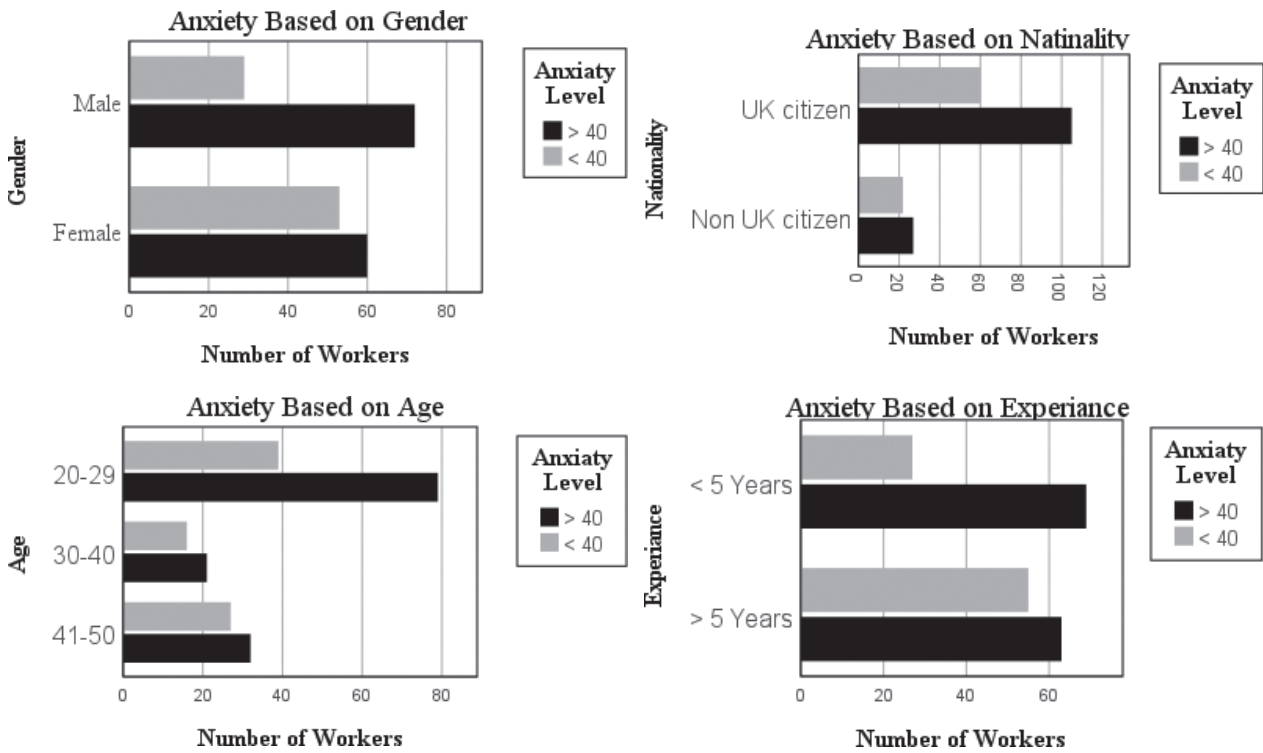
Figure 1. Sample distribution between different factors used in the statistical analysis.

Table 1. Relation of \demographic to anxiety using Spearman's test.

	Spearman's r	P-value
Gender	-0.187	0.006*
Nationality	-0.074	0.283
Age	-0.120	0.08
Salary ($)	-0.197	0.005*
Marital status	0.089	0.196
Education	0.183	0.007*
Experience	-0.189	0.006*

*Significant *P*-value.

Table 2. Basic demographical data and its relation to anxiety for Heathrow Airport workers of the tested cohort.

		Anxiety Level		X²	P-value
		< 40 counts (%)	> 40 counts (%)		
Gender	Male	29 (28.7)	72 (71.3)	7.466	0.006*
	Female	53 (46.9)	60 (53.1)		
Nationality	UK	60 (36.4)	105 (63.6)	1.164	0.28
	Non-UK	22 (44.9)	27 (55.1)		
Age	20–29	39 (33.1)	79 (66.9)	3.148	0.21
	30–40	16 (43.2)	21 (56.8)		
	41–50	27 (45.8)	32 (54.2)		
Salary ($)	> 30000	49 (38.3)	79 (61.7)	9.275	0.005*
	< 30000	33 (38.4)	53 (61.6)		
Marital status	Married	72 (40.2)	107 (59.8)	1.682	0.195
	Single	10 (28.6)	25 (71.4)		
Education	Below BSc	55 (48.2)	59 (51.8)	22.040	< 0.001*
	BSc	22 (23.2)	73 (76.8)		
	Above BSc	5 (100)	0 (0)		
Experience	< 5 Years	27 (28.1)	69 (71.9)	7.653	0.006*
	> 5 Years	55 (46.6)	63 (53.4)		

* Significant *P*-value.

of anxiety level with a higher percentage of 66.9% in ages between 20–29 with anxiety level of higher than 40. On the other hand, the percentage of married workers were higher than single workers. Even though, the percentage of workers with higher level of anxiety were found to be higher at single martial status of 7.1.4% when compared to 59.8 with married workers. Finally, workers salary, education level and experience were found to be a significant factor for the level of anxiety with a *P*-values of 0.005, 0.007, and 0.006 according to Spearman's test and 0.005, < 0.001, and 0.006 according to chi-square test respectively. Both workers with salary higher or lower than 3000$ have similar percentages of around 61% with anxiety level higher than 40 and around 39% for anxiety level lower than 40. On the other hand, experience have played a vital rule in reducing the level of anxiety as people with experience lower than 5 years were found to have a higher percentage of 71.9% with anxiety level higher than 40. While people with experience of a more than 5 years were found to have a lower percentage of a 53.4% for anxiety level higher than 40. Regarding education, workers with education levels lower than BSc have found to exert a similar percentage for the anxiety level (lower or higher than 40), while a significant increase in the percentage of people with higher lower of anxiety to reach 76.3 with people with BSc education level. For workers with education level higher than BSc, a small sample was found (5 workers only) all of them had anxiety level of lower than 40.

Discussion

Many changes have been found in airports, airlines, and other companies working directly with people intended to flights after Covid-19 pandemic era. This research was aimed to evaluate many factors that could be a reason for

the elevated anxiety levels in Heathrow airport at London, UK. The two levels of anxiety were obtained using Self-Rating Anxiety Scale to evaluate the correlation between many demographical factors such as, gender, age, nationality, salary, martial status, education, and experience and anxiety levels for the selected airport workers. Data analysis have shown all factors were found to result in the elevation of anxiety levels except the non-UK nationality, females, ages between 30–50, and education levels below and higher than BCs. Airport workers are usually wearing defensive masks and gloves in addition working with many huge numbers of people from different countries can lead to increase the pressure on the mentioned workers. Likewise, the presence of travelers from different countries means different measurements and rules put the workers under pressure to keep all travelers safe (Colovic et al. 2022; Pachucki et al. 2022; von Soest et al. 2022). Regardless to the level of significancy for each factor, males were found to exert higher percentage of anxiety than females. Other studies about workers with high contact with people were indicated that females are with higher percentages to have higher anxiety levels than males (Khesht-Masjedi et al. 2019; Alboghdadly et al. 2022). Similarly, workers nationality and martial status were found to be with P-value of higher than 0.05. Even thought, workers with UK nationality were found to be with a higher percentage in high level of anxiety when compared to other nationalities. While single workers show to exert the higher percentages of high anxiety levels. These results were to be similar to a previous results published in 2022 about the high rate of turnover for people with UK nationality and the high competition in different disciplines with people from other nationality (Warner et al. 2022). In addition, a study was published before on 11 UK population mentioned that people from UK were found to be with depression, anxiety and low live satisfaction levels after Covid-19 (Thompson et al. 2022). Regarding the effect of age on the level of anxiety, young workers with age between 20–29, were found to have the higher level of anxiety percentage. Even though, age as a factor were found to be as a non-significant factor for the elevated anxiety levels for airport workers. A different results were found in a study published before for the medical staff that indicated a higher percentage for people with above ages to exert a higher level of anxiety with a P-value lower than

0.05 (Alboghdadly et al. 2022). On the other hand, another study published in 2022 has confirmed the massive impact of Covid-19 and its measurements on the behavior and the mental of children and young adults on United State (US) population (Rosenberg et al. 2022). Workers with salary above or lower than 30000\$/Year were found to be affected by Covid-19 even after the end of pandemic. The salary was found to be significantly affect the anxiety level with a P-value of 0.005. A previously published article in 2023 at Sweden about the income inequality that resulted in a mental outcomes for workers that confirm what can be happened in UK (Angelov and Waldenström 2023). Similarly, education has a significant effect on anxiety level with a P-value lower than 0.05 with a higher level of anxiety in workers with BCs qualifications. These results were found to be different to previous research about the medical staff which indicated the insignificancy of education and a higher percentage of people with education level of lower than BCs (Alboghdadly et al. 2022). Worker's experience was found to play a vital role in reducing the level of anxiety for airport workers and was found to be a significant factor with a P-Value lower than 0.05. it was found that workers with higher experience were able to handle the pressure better than workers with lower experience (Al Ozairi et al. 2023). Similarly experience of the medical staff were found in a previously published research was found to play a an important role in reducing the stress and pressure (Alboghdadly et al. 2022).

Conclusion

The study indicated that Heathrow airport workers needs a specific support and psychological help due to the harsh condition they suffer from, especially after Covid-19. Covid-19 complications are not reduced only by vaccination or any treatments but other things should be taken in considerations (Saadh and Jaber 2022; Jaber 2023a; Jaber and Saadh 2023). It was found that workers gender, salary, experience, and education should be taken in consideration when designing a psychological and support programs to get the best reduction in the anxiety level. In addition, authorities and countries should produces a protocol for anxiety reduction, and should put a yearly budget for this.

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