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## The Relationship Between Burnout and Job Satisfaction Among Autism Coaches in the Kurdistan Region of Iraq

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### Abstract

**Background:** The care, support, and delivery of psychological interventions for children who are diagnosed with autism spectrum disorder are challenging and burdensome. The present study aims to determine the association between burnout and job satisfaction among autism coaches. It also intends to investigate various demographic and occupational characteristics associated with burnout and job satisfaction.

**Methods:** An online survey was used to collect data on 168 autism coaches in the Kurdistan Region of Iraq. The instruments used were the Maslach Burnout Inventory Human Services Survey for Medical Personnel to measure burnout; the Minnesota Satisfaction Questionnaire to measure the job satisfaction of the study participants; and some demographic and occupational questions.

**Results:** The results show that burnout and job satisfaction are negatively linked (i.e., the more the level of burnout, the less the level of job satisfaction). Furthermore, factors like being male, working for long hours, and providing applied behavior analysis strategies and individualized educational plans might increase the rate of burnout. However, working as an independent autism coach and marital status had no statistically significant impact on burnout and job satisfaction.

**Conclusion:** The study shows how important it is to prevent burnout in order to increase the job satisfaction of autism coaches. Strategies to combat burnout include reducing excessive working hours and providing better support with the demands of the role. Integrating psychotherapists or counselling services into autism centres may provide important mental health support to autism coaches, improving their job satisfaction and overall wellbeing.

### Keywords

*Burnout, Job Satisfaction, Autism Coaches, Autism Trainers, Individualized Educational Program, Applied Behavior Analysis*

## INTRODUCTION

Autism spectrum disorder (ASD) is identified as a neurodevelopmental condition distinguished by enduring challenges in social communication and interaction across various settings, coupled with patterns of restricted and repetitive behavior, interests, or activities (American Psychological Association [APA], 2022). Recent prevalence estimates for ASD are approximately one in 100 children (Zeidan et al., 2022). Treatment strategies such as applied behavior analysis (ABA), individualized educational plan (IEP), and treatment and education of autistic and related communication handicapped children (TEACCH) have gained prominence in recent decades

(Musyoka & Clark, 2017; Sullivan & Wang, 2020). ABA, recognized as the most evidence-based intervention (Hurt et al., 2013), is widely used in both private and government centers, specifically for children with ASD (Cooper et al., 2007).

Autism coaches, also known as ABA therapists or special education teachers, play a crucial role in teaching skills and providing treatment strategies for children with ASD (Blackbyrn, 2022). In the Kurdistan Region of Iraq (KRI), there are approximately 20 autism centers providing mental health services for individuals with ASD (Rudaw, 2019). While the exact number of autism coaches in these centers is not well-documented, Rudaw (2019) reported that

around 2800 cases of ASD receive psychological interventions from autism coaches in these centers five days a week.

Previous studies have reported many psychological consequences of working with children with behavioral and emotional problems. For example, Courtenay & Perera (2020) linked this work to increased aggression, while Hutchison et al. (2016) associated it with heightened stress levels. Additionally, Quintero & McIntyre (2010) noted elevated rates of depression, emotional exhaustion, and anxiety among professionals in similar roles. In addition, some physiological responses to such psychological consequences of working with children with ASD have been observed. For example, Khanna et al. (2011) showed that supporting children with ASD is very demanding and stressful, and therefore providers have a high chance of suffering from physical health problems and pain. Khanna et al. (2011) also discovered that caregivers of ASD children had a negative quality of life. Therefore, the two main variables we focus on in this study as psychological effects of working with children with ASD are burnout as the independent variable and job satisfaction as the dependent variable.

### **Burnout**

*Burnout* is defined as a condition in which workers experience certain symptoms as a result of a chronically stressful work environment that has been ineffectively managed (World Health Organization [WHO], 2019). Maslach and Jackson (1997) pointed out that burnout includes three main symptoms, namely, 'emotional exhaustion (EE), depersonalization (DP), and reduced personal accomplishment (PA)'. Maslach (2015) explained the three dimensions of burnout (i.e., EE, DP, and PA). First, she defined EE as a syndrome in which a person works under pressure for a long period and feels emotionally exhausted or drained and physically fatigued and lacking in empathy. In addition, she noticed that a certain degree of stress resulted in the health provider treating patients as objects: this is referred to as DP. If a person's perception of their own performance is not considered satisfying or exciting, this is referred to as a reduced PA.

Burnout was found at a high level among different

professionals, for example, physicians (Hodkinson et al., 2022) and medical staff (Yue et al., 2022), mental health providers such as psychiatrists (Abu Zied et al., 2020; Chumakov et al., 2022; Yao et al., 2021), consulting child psychiatrists (McNicholas et al., 2020), and clinical psychologists (Allwood et al., 2020). However, there is very little research on burnout among professionals working with children with ASD.

### **Job Satisfaction**

Paliga (2022) defined *job satisfaction* as the positive or negative attitudes towards work, encompassing cognitive aspects such as knowledge, evaluative judgments, and opinions about one's job; affective elements involving emotions and feelings related to work; and behavioral components including individual predispositions and manifestations of an employee's actions in connection with their job performance. Gazi et al. (2022) defined job satisfaction as a comfortable feeling in a current job. In the last decade, job satisfaction has become one of the most interesting topics for researchers in the field of mental health. For example, Scanlan and Still (2019) found a strong correlation between job satisfaction, turnover intention, and burnout, highlighting the significant influence of job resources such as rewards, recognition, job control, feedback, and participation, as well as the impact of job demands like emotional demands, shiftwork, and work-home interference on mental health personnels' overall job satisfaction. Kosec et al. (2022) found that job satisfaction increased employee well-being and job performance. Similarly, special education teachers who are satisfied with their work, can achieve their specific goals more effectively (Adliah & Juwita, 2018, as cited in Roswandi et al., 2021).

Understanding the link between burnout and job satisfaction is crucial, with previous studies demonstrating a negative correlation between the two (Scanlan & Still, 2019; Yao et al., 2021). Luther et al. (2017) found that support from supervisors and colleagues can alleviate job dissatisfaction among clinicians. Similarly, studies on special education teachers, such as Myles et al. (1991), highlight higher burnout levels and lower job satisfaction among those teaching children with ASD. Few studies exist on this topic, but Shen et al. (2015) and O'Brien et al.

(2019) among others confirm the detrimental effects of burnout on job satisfaction, particularly in fields like special education and mental health.

### ***The Study Problem***

Despite numerous studies and attempts in the past to find out the relationship between burnout and job satisfaction among many different professionals, there is still a large gap in the literature and a lack of published work showing burnout and job satisfaction only among those professionals (i.e., autism coaches) who work with children with ASD. In addition, there is a research gap in the literature regarding specific types of interventions (e.g., ABA and IEP) as predictors of burnout and job satisfaction among autism coaches, particularly in recent decades. We focused on burnout as the primary outcome variable because it has a direct and significant impact on autism coaches' quality of life and job performance. Burnout is associated with emotional exhaustion, decreased productivity, and a decreased ability to effectively support children with autism spectrum disorders. Given the serious consequences for both caregivers and the children they work with, it is important to identify the factors that contribute to burnout. By focusing on burnout, we aim to gain insight into how to mitigate its effects and improve overall outcomes in autism care.

### ***Research Questions***

The goal of this research is to fill gaps in the literature on burnout and job satisfaction among autism coaches. Specifically, to explore the following six research questions:

1. Is there a statistically significant relationship between burnout and job satisfaction among autism coaches in the Kurdistan Region of Iraq?
2. Are there statistically significant differences between participants' burnout level based on gender?
3. Are there statistically significant differences between participants' burnout levels and job satisfaction based on their marital status?
4. Is there a statistically significant relationship

between the participant's burnout level and the number of hours worked per week?

5. Are there statistically significant differences between participants' burnout levels and job satisfaction depending on their job type (i.e., those who work in a center versus those who work independently)?
6. Are there statistically significant differences between participants implementing an ABA intervention, those implementing an IEP intervention, and those implementing both interventions in terms of their burnout?

### ***Hypotheses***

Based on the study's research questions, available literature, and our previous experience working as autism coaches, we developed the following hypotheses: First, there would be a statistically significant negative impact of burnout on job satisfaction among autism coaches. Second, burnout would be higher among female participants than male participants, but we did not hypothesize whether the result would be statistically significant. Third, there would be no statistically significant differences between married and single individuals in terms of burnout and job satisfaction. Fourth, the number of hours worked per week would be a positive statistical predictor of burnout in autism coaches. Fifth, burnout and job dissatisfaction would be significantly higher among employed autism coaches than freelance autism coaches. Finally, burnout and job dissatisfaction would be higher among those offering ABA strategies than those offering other interventions.

## **METHODS**

### ***Study Design***

The research method of this study was a descriptive correlation method based on a

quantitative study and an electronic survey with a web-based survey type. It is also known as a

cross-sectional survey with an online survey

### ***Participants***

The number of participants consisted of 198 autism coaches, but after 30 participants were excluded due to incomplete responses and one participant was excluded due to lack of consent to participate in the study, the final number of participants consisted of 168 autism coaches (95 male and 73 female) aged 21–49 years ( $Mean = 25$ ,  $SD = .5$ ). Participants in the study belonged to two main types of autism coaches: those who worked independently as freelance autism coaches; and those who were employed (i.e., worked in autism centers funded by the government or an agency). All participants were located in two governorates of the KRI: Erbil and Sulaymaniyah. Unfortunately, no data were provided on the number of autism coaches in the two governorates. Regarding the intervention strategies offered by autism coaches for children with ASD, 86 participants offered ABA strategies, one of the participants offered only an IEP, 70 of the participants offered both interventions (i.e., ABA and IEP), and 11 of the participants offered neither ABA nor IEP. Table 1 details the participants' sociodemographic and occupational variables.

## Measures

### Burnout

Maslach Burnout Inventory Human Services Survey for Medical Personnel (MBI-HSS (MP)) was developed by Maslach et al. (1997) to measure the degree of burnout. We used this instrument to assess the level of burnout among the participants of the current study. The instrument consists of 22 items rated on a 7-point Likert scale (0 = never, 1 = A few times a year or less, 2 = Once a month or less, 3 = A few times a month, 4 = Once a week, 5 = A few times a week, 6 = every day). The MBI-HSS (MP) is divided into three subdomains or three dimensions: EE (items 1 to 9), which measures feelings of exhaustion at work; DP (items 10 to 14), which measures emotional numbness without empathy at work; and PA (items 15 to 22), which measures feelings of energy and accomplishment at work. The MBI-HSS (MP) is the most commonly used scale in the literature to assess burnout levels among health professionals or human service providers because of its good psychometric properties (Lin, 2022). Previous studies have established instrument reliability and validity for each subscale (Maslach et al., 1997). McCallum et al. (2022) reported Cronbach's alpha for EE, DP,

and PA, which were .91, .75, and .80, respectively, for physicians.

### Job satisfaction

The Minnesota Satisfaction Questionnaire (MSQ) short form was used as an instrument to measure participants' job satisfaction. The MSQ short form, developed by Weiss et al. (1967), consists of 20 items, and is scored on a 5-point Likert scale ranging from 1 (very satisfied) to 5 (very dissatisfied). For this instrument, a lower score means that job dissatisfaction is low, and a higher score means that job dissatisfaction is higher. The MSQ short form assesses three domains of satisfaction: inherent satisfaction, meaning approval of the job and the opportunity to advance in the job (Strydom et al., 2012); extrinsic satisfaction means the spirit of sharing, helping, and sharing tools to learn and work with colleagues; and general satisfaction means that people enjoy working with their colleagues and generally appreciate the work environment. Strydom et al. (2012) found good reliability for each of the satisfaction domains among special education teachers. They found an internal consistency of .86 for intrinsic satisfaction, .90 for extrinsic satisfaction, and .70 for general satisfaction.

### Demographic

The demographic and occupational questions considered gender, age, marital status, place of work (name of governorate), number of years of experience, number of hours worked per day, monthly salary, type of job as an independent coach or at one of the four target centres, and name of intervention strategies (ABA & IEP) used with children.

### Validity and Reliability

To obtain the validity of the two instruments on burnout and job satisfaction for the Kurdish version, we used the expert committee approach, in which the two original instruments (English versions) were sent to a committee consisting of two experienced backward translators. The two experts separately translated the English version of the two instruments into the Kurdish version. There were two preliminary versions for each of the instruments. Then, the Kurdish pre-release versions of the instruments were submitted to a language expert to eliminate any in-



consistencies in the pre-release versions. After the discrepancies had been resolved, we finally received the final Kurdish version with construct validity for each of the two instruments. This translation process took two weeks.

To determine reliability, we determined internal consistency using Cronbach's alpha method. In the present study, the internal consistency for EE, DP, and PA among study participants was .88, .72, and .84, respectively. In addition, the MSQ had high internal consistency ( $\alpha = .93$ ).

### Procedure

Before starting the study, we contacted the directors of autism centers (i.e., Emirates Autism Center, Bahoz Center, Himat Center, and Redoz Center) in two governorates, namely Erbil and Sulaymaniyah of KRI, to seek permission to conduct the study in their centres. We then began collecting data on the participants based on the inclusion criteria, which stated that the participants should be autism coaches working in the KRI, whether independent or working in private centres. First, data were collected from the four autism centers, and second, from 28 independent coaches working as private coaches in the same governorates. At the beginning of the process, we contacted the human resources manager (HR) of each autism center for the contact details of autism coaches in their centers. Staff were contacted via WhatsApp. A WhatsApp group that included most of the autism coaches in KRI was also set up thus reaching out to independent autism coaches. Participants received a short text about the study and a link to the study. The link to the survey was created on the SurveyMonkey website and made available to all participants so they could complete the self-administered questionnaires in Kurdish. When participants clicked on the survey link, they saw an informed consent form which included the purpose and plan of the study, as well as information about risks, confidentiality, and benefits. On agreeing to participate in the study, they could move to the next page to see the demographic and occupational questions and self-administration questionnaires for burnout and job satisfaction. Participants who did not agree to participate clicked on "No, I do not agree" and did not get to see the questionnaires. For the completion of the two self-administrated questionnaires partic-

ipants needed 15-17 min. After the study was completed, participants were thanked for participating in the study. Data collection lasted from November 10, 2022, to December 29, 2022, and all online links to data collection were closed on December 30, 2022.

### Data analysis

All data collected from the participants was entered into the Statistical Package for the Social Sciences (SPSS) for analysis. These non-parametric tests were used to analyse the data and find out the results of the research question.

## RESULTS

As shown in Table 1, the number of study participants was 168 autism coaches (56.5% men and 43.3% women). The age of the participants ranged from 21 to 49 years, and 51.2% were between 21-29 years old. Sixty-nine of the participants were single and 31% were married. In addition, study participants were from two governorates of the KRI (51.8% from Erbil and 48.2% from Sulaymaniyah). The majority of participants had 3 years of experience working with ASD children and worked 5-6 hours per day. Most of them had a monthly salary of 500,000 IQD to 800,000 IQD. In addition, 83.3% of participants worked in autism centers and 16.7% worked independently as private coaches. And 52.1% offered ABA strategies.

The first main objective of this study was to determine the statistical relationship between burnout and participants' job satisfaction. Spearman's rho correlation showed a significant negative correlation between burnout ( $M = 70$ ,  $SD = 35.9$ ) and job satisfaction ( $M = 54.6$ ,  $SD = 14$ ) with a correlation coefficient of  $r_s = -.697$  ( $P < .01$ ) indicating that job satisfaction decreases with increasing burnout.

The second aim of the study was to examine differences in burnout levels between male and female participants. The Mann-Whitney U test revealed a statistically significant difference between genders, with females having a higher mean burnout score ( $M = 109.5$ ) compared to males ( $M = 65.3$ ),  $p < .001$  (see Table 2). Hence, female autism coaches experience higher levels of burnout than male autism coaches.

The third objective of this study was to examine

**Table 1.** The Demographic and Occupational Information

Participant's characteristics	Frequencies (n)	Frequencies (%)
Gender		
Male	95	56.5
Female	73	43.5
Age		
21-29	86	51.2
30-39	81	48.2
40-49	1	0.6
Marital status		
Single	116	69
Married	52	31
Governorates		
Erbil	87	51.8
Sulaymaniyah	81	48.2
Years of experience		
Less than one year	6	3.6
One year	23	13.7
Two years	43	25.6
Three years	55	32.7
Four years	26	15.5
Five years	5	3
More than five years	10	6
Working hours		
One to two hours	3	1.8
Three to four hours	31	18.5
Five to six hours	64	38.1
Seven to eight hours	63	37.5
Nine to ten hours	5	3
Eleven and more hours	2	1.2
Monthly salary *		
Non-salary	2	1.2
100,000-300,000 IQD	31	18.5
300,000-500,000 IQD	46	27.4
500,000-800,000 IQD	81	48.2
800,000-1,000,000 IQD	6	3.6
More than one million IQD	2	1.2
Type of working		
Employed in a center	140	83.3
Freelance	28	16.7
Intervention strategies **		
ABA	86	51.2
Both (ABA and IEP)	71	41.7
None of them	11	6.2

Note. N = 168 (n = the number of participants according to their categories). % = the percentage of their values. \* IQD = Iraqi Dinars (100,000 IQD = 68 USD). \*\* In answering the question "are you using ABA, IEP or both interventions", the participants answered either "yes" or "no."

**Table 2.** Burnout Means Ranks by Gender

Variables	n	M	P
Burnout	-	-	-
Gender	-	-	-
Male	95	65.27	< .001
Female	73	109.52	< .001

Note. Significant differences if  $p < .001$ . (1-tailed).

potential differences in burnout levels and job satisfaction between married and single participants. The Mann-Whitney U test showed that single par-

ticipants had a higher median burnout score ( $Mdn = 85.56$ ) compared to married participants ( $Mdn = 82.14$ ), though the difference was not statistically

significant ( $p > .001$ ). Similarly, single participants had a higher median job satisfaction score ( $Mdn = 87.1$ ) than married participants ( $Mdn = 78.67$ ), but this difference was also not statistically significant ( $p > .001$ ). Therefore, while there were differences

in burnout levels and job satisfaction between single and married participants, these differences were not statistically significant.

The fourth aim of the study was to assess the cor-

**Table 3.** Burnout and Job Satisfaction by Marital Status

Variables	n	Mdn	P
Burnout	-	-	-
Marital Status	-	-	-
Single	116	85.56	0.674
Female	52	82.14	0.674
Job Satisfaction	-	-	-
Marital Status	-	-	-
Single	116	87.11	0.298
Married	52	78.67	0.298

Note.  $p > .001$

relation between participants' work hours and burnout. Using Spearman's rho correlation test, the results showed a negative correlation between work hours and burnout ( $r_s = -.22$ ), which was statistically sig-

nificant ( $p < .01$ ) as shown in Table 4. This indicates that as participants worked more hours, they faced a higher risk of burnout.

**Table 4.** Correlation Between Hours of Working and Burnout

Variables	n	$r_s$	p
1. Burnout	168	-.222**	.002
2. Working hours	168	-.222**	.002

Note. \*\* Correlation is significant at the 0.01 level (1-tailed).  $P < .01$

In this study, the fifth objective was to determine statistically significant differences between participants who worked in autism centers and those who worked independently in terms of their burnout levels and job satisfaction using the Mann-Whitney U test. As shown in Table 5, the mean burnout score of autism coaches who worked in centers was 85.8 ( $Mdn = 85.8$ ), which was higher than those who worked independently ( $Mdn = 77.96$ ), but  $p > .001$ . As for the second part of the third research question, the result showed that the mean score of employed autism coaches for their job satisfaction was 89.3, which was higher than the mean score of autism coaches who worked as freelancers ( $Mdn = 60.6$ ), and  $p > .001$  (see Table 5). Thus, the result showed there were differences between employed and freelance autism coaches in KRI in terms of their burnout level and job satisfaction, but these differences

were not statistically significant.

In the sixth objective of the study, we wanted to find statistically significant differences between participants who were offered different interventions in terms of their burnout. To answer this research question, we used the Kruskal-Wallis H test. As shown in Table 6, the mean score of the participants who used both interventions (i.e., ABA and IEP) was 110, which was higher than the mean score of the other participants who were offered only one intervention, and  $p < .001$ . The result showed a statistically significant difference between the participants in the study who offered different interventions for children with ASD in terms of their burnout levels. Thus, those who used ABA and IEP interventions simultaneously had more burnout than those who offered only one of the interventions.

**Table 5.** Burnout and Job Satisfaction by Working Type

Variables	n	Mdn	p
Burnout	-	-	-
Working type	-	-	-
Employed	140	85.8	0.436
Freelance	28	77.96	0.436
Job Satisfaction	-	-	--
Working type	-	-	-
Employed	140	89.3	0.004
Freelance	28	60.6	0.004

Note: 'Employed' are those who work in an autism center whereas freelance are those who work independently. In both variables p > .001

**Table 6.** Burnout Level by Interventions

Variables	n	M	SD	Mdn	p
Burnout	-	2.77	0.289	-	-
Interventions	-	1.04	1.09	-	-
ABA	86	-	-	61.99	< .001
IEP	1	-	-	57	< .001
Both	70	-	-	110	< .001
None of them	11	-	-	100	< .001

Note. P < .001

## DISCUSSION

Previous studies highlight the challenges and stress faced by providers caring for children with ASD (Ferguson et al., 2022; Quintero & McIntyre, 2010). This study investigated the relationship between burnout and job satisfaction among autism coaches in Kurdistan, Iraq, focusing on demographic and occupational variables.

The first major finding reveals a significant negative correlation between burnout and job satisfaction among autism coaches. As burnout increases, job satisfaction decreases, indicating that high burnout levels lead to job dissatisfaction. This finding aligns with previous research among Applied Behavior Analysis (ABA) supervisors and psychiatrists, suggesting a consistent negative relationship between burnout and job satisfaction (Dounavi et al., 2019; McNicholas et al., 2020; Yao et al., 2021). It supports the notion that job burnout adversely affects job satisfaction, particularly among mental health service providers working with children with ASD.

The second finding indicates that female autism coaches experience higher levels of burnout compared to their male counterparts, with this difference being statistically significant. This observation

resonates with existing literature across various occupational groups, attributing higher burnout levels among women to their multiple responsibilities, especially within the household (Artz et al., 2022). The societal expectations and workload placed on women may contribute to their increased burnout risk in professional settings, highlighting the need for gender-sensitive support mechanisms.

Contrary to expectations, the third finding reveals no statistically significant differences in burnout levels and job satisfaction between single and married autism coaches. This contrasts with previous studies suggesting higher burnout levels among unmarried individuals due to factors such as lack of family support and childcare responsibilities (Cañadas-De la Fuente et al., 2018; Artz et al., 2022). The findings offer new insights into the complex interplay between marital status and burnout among autism coaches.

The fourth finding underscores a positive correlation between work hours and burnout levels among autism coaches. Longer work hours are associated with increased burnout risk, as evidenced by emotional exhaustion and depersonalisation. This aligns with prior research indicating that extended working hours contribute to emotional exhaustion and reduced well-being (Sang et al., 2022; Yao et al., 2021).



It emphasizes the importance of workload management and breaks to mitigate burnout risks among autism coaches.

Surprisingly, the fifth finding indicates no statistically significant differences in burnout levels and job satisfaction between autism coaches working in private centers and those working independently. This contradicts previous studies suggesting higher burnout levels among employed professionals compared to freelancers (Paul et al., 2021). The findings suggest that regardless of employment status, autism coaches face similar burnout risks, emphasizing the need for tailored support strategies irrespective of organizational affiliation.

Lastly, the sixth finding highlights a significant difference in burnout levels between autism coaches offering only ABA or Individualized Education Program (IEP) interventions and those offering both simultaneously. Coaches providing both interventions concurrently exhibit higher burnout levels, possibly due to the increased workload and complexity associated with managing multiple intervention strategies. This finding underscores the importance of workload optimisation and intervention planning to prevent burnout among autism coaches.

## IMPLICATIONS

The results of the study have significant implications for the field of autism coaching. Firstly, it emphasises the need to use this data to identify individuals who may need increased support. By identifying factors related to job satisfaction and burnout, efforts can be targeted to those in need. It is essential to tailor support mechanisms to meet these specific needs.

Rather than offering generalized support, targeted interventions can be developed based on individual risk factors. This approach ensures that resources are utilised efficiently, and that support is provided where it is most needed. For example, coaches who have higher levels of burnout in certain areas, as shown by the subscales, may benefit from interventions tailored to these specific aspects of their work.

In addition, organisational support initiatives should be implemented to promote the mental well-being of autism coaches. These initiatives may include stress

management workshops, counselling services, and gender-specific support mechanisms to address the unique challenges of female coaches. In addition, agencies should establish support committees to facilitate professional development opportunities and obtaining licenses.

Future research should investigate psychological interventions specifically tailored to the needs of autism coaches. By further examining the factors that contribute to burnout and job satisfaction, we can develop more targeted and effective interventions to effectively mitigate the risk of burnout.

## LIMITATIONS

The study is subject to several limitations, including a small sample size and limited geographic scope, which may affect the generalisability of the findings. Additionally, the reliability and validity of measurement instruments may impact the accuracy of results. Biased responses due to fear of job repercussions and language barriers further complicate data interpretation. Future research should address these limitations by employing larger and more diverse samples and validating measurement instruments in the local context.

## RECOMMENDATIONS

Based on the findings of the present study, we first recommend that autism centers consider having psychotherapists in their centres to provide psychotherapy or counselling services for autism coaches. In cases where autism coaches have psychological problems or work under stress that affects their careers and daily activities, or where they have difficulty providing interventions for ASD children, the psychotherapist can help them overcome the psychological problems. Ruiz-Robledillo and Moya-Albiol (2015) found cognitive behavioral therapy an effective psychotherapy approach to help caregivers of ASD children. Secondly, we recommend that autism centre supervisors create posters on stress management techniques and hold monthly mental health awareness workshops for autism coaches. Thirdly, we recommend that governments, especially the Ministry of Social Affairs, establish a committee or association for autism coaches. This committee or association is important to gather all autism coach-

es, provide them with more training programs about ASD, and direct them to becoming licensed. Finally, the results suggest that future researchers should investigate the same research questions in other countries and autism centers, with an additional focus on psychological interventions, especially ABA and IEP in relation to burnout and job satisfaction. Further research of coping strategies to reduce burnout among professionals working with ASD children is very important.

We recommend the following ten strategies that autism coaches can use to reduce their burnout and improve communication with colleagues during their workday:

- 1- As you prepare to go to work, be aware of the things you do. Take a moment to affirm that you choose to go to work today. Briefly review what you will be doing.
- 2- At the beginning and end of the workday, make sure you have a good relationship and communication with your colleagues.
- 3- If you feel that you are under stress and your muscles and shoulders are tense, ask your supervisor for a break and then do some breathing exercises and muscle relaxation.
- 4- Try to have fun during the break. You can also go to your room at the centre during the break, close the door, sit down and start a breathing relaxation exercise by breathing in through your nose for five seconds and then slowly breathing out through your mouth.
- 5- During breaks and lunch, sit with people you like and have fun with them. If you are not a sociable person, try to eat by yourself.
- 6- Try to improve your communication skills.
- 7- At the end of your workday, review what you have done and what is due the next day, and prioritize the most important tasks that you need to do first. You can also do time management on this day.
- 8- When you leave work, go somewhere you like.
- 9- When you get home, take a shower and change your clothes.
- 10- If you find that your strategies for overcoming burnout are effective, try sharing them with your colleagues.

## CONCLUSION

This study addresses the gap in understanding burnout and job satisfaction among autism coaches, particularly regarding intervention types. Findings reveal a negative correlation between burnout and job satisfaction. Specifically, male coaches experience higher levels of burnout compared to their female counterparts. Additionally, long work hours and certain interventions, such as Applied Behavior Analysis (ABA) and Individualized Education Programs (IEP), increase the risk of burnout. Marital status and working independently show no significant effect on burnout levels. Recommendations include integrating psychotherapy support in centers and revising interventions to reduce stress. Further research on the impact of psychological interventions is essential.

## DECLARATIONS

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### Authors' contributions

The two authors contributed equally to the editing of this article and thoroughly reviewed and approved the final version of the manuscript.

### Disclosure Statement

No potential conflict of interest was reported by the authors.

### Ethical Approval

This study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board (IRB) at Doha Institute for Graduate Studies with approval number DI-IRB-

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## Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request

## Informed consent

Before participating in the study, the participants provided written informed consent.

## Study Registration

This study was conducted as part of a thesis project at the Doha Institute for Graduate Studies and has been published in ProQuest publisher.

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