

Job Satisfaction of Physicians Working in Primary Care Centers and Family Health Care Centers During COVID-19 Pandemic in Al- Rusafa Directorate / Baghdad / Iraq / 2022

Teeba Moaed Abdul Monem

& Kefah H. Abid Al-Majeed

MBChB, Iraqi MoH
Teebamoaed079@Gmail.com

MBChB, FICMS (FM) Consultant Dr
alsoudikefah@yahoo.com

Abstract:

Background: Job satisfaction is a scale of people's content with their job and an estimation of their work experience with effort and the use of the right methods in performing the task, and then a success can be produced. The resulting success will create a sense of satisfaction in work. This job satisfaction, if it can be enjoyed, will make an individual feel self-confident, feel appreciated and in turn become a motivator in doing the job better.

Objective: To assess the job satisfaction among physicians working in family health care centers and primary health care centers during COVID 19 pandemic and the factors associated with it.

Methods: A descriptive cross-sectional study with a convenient sample of 100 physicians was carried at the main primary health care centers and family health care centers (14 PHC and 15 FHC) in Al-Rusaffa directorate, Baghdad, Iraq. Period of study was from the first of February 2022 till the 30th of December 2022. The data were collected by self-administered questionnaire after having verbal consent of doctors working in the mentioned centers.

Results: 89% of the participants had low satisfaction, 10% of the participants had fair satisfaction and only 1% of the participants had high satisfaction, most of the participants were not satisfied about the incentives and letter of thanks (87%, 65% respectively). According to the additional work and stress added during the pandemic, only 2% of the participants were satisfied about the salary.

There was a statistical significant association between type of the center and satisfaction score. There was also a statistical significant association between the number of doctors working in these centers and satisfaction score.

Conclusion: the overall satisfaction of doctors both specialists and GPs was low, the satisfaction was more in family health center than primary health centers.

Key words: Job satisfaction, physicians, family health care centers.

Introduction

Job satisfaction reflects a positive feeling towards the task performed. Through this value of job satisfaction, an individual will feel confident and enthusiastic in every job undertaken. With job satisfaction as well, an individual will be able to maintain loyalty in the work done.^[1]

There are many definitions for the job satisfaction by many researchers. One of the most widely used is job satisfaction defined as "a pleasurable or positive emotional state resulting from one's work or work experiences", Brief (1998) defined job satisfaction as "an internal state that was expressed by affectively or cognitively evaluating an experienced job with some degree of favor or disfavor."^[2]

So, the term "satisfaction" is a complicated term because it involves not only the personal experience and expectations, individual and social values but is also involves behaviors, such as motivation, faithfulness, professional fulfillment, etc. and it has different meanings for each individual. Although it is complicated and not easy, it is critical to ensure the satisfaction of every individual especially doctors in the sectors like health care sector where vivid, often long term, and emotionally exhausting labor and human relations happen, and thus measurement of

this difficult to achieve and divers quality is fundamental.^[3]

Job satisfaction in some countries has been achieved by defining a happy workplace, a place where people feel motivated and relaxed. It helps in increasing productivity among the people. It reduces the dedication of human resources in solving the injustice of the workplace. The higher level of job satisfaction among the employees decreases the staff turnover and absenteeism in an organization, Job satisfaction is the acknowledgment of doing the job with full dedication and hard work.^[4]

Factors that affect job satisfaction

Studies identify four major job stressors including demands of the job with less reward and patients' expectations, interference with family life, constant interruptions at work and home, and administration of practice.^[5] It has been found that the level of job satisfaction depends upon the various set of components in an organization. The major components which are identified as an important asset for job satisfaction are supervision, promotion, operating conditions, nature of work, contingent rewards, and other factors.^[6] Modern changes in the healthcare system, increase in the workload, reduced

physician's autonomy, and respect are some of the main reasons for dissatisfaction.^[7]

It is also reported that physical and psychological symptoms of anxiety and depression cause unsatisfactory work performance, and increasing the risk of accidents.^[8] Anxiety impacts on work. It affects work both at individual and organizational levels. At the individual employee level, this leads to impaired work performance, accidents and sickness absence. At the organizational level, there are likely to be affected on productivity, staff morale, accidents, absences, and staff turnover.^{[9][10]}

Stress represents the main environmental risk factor for psychiatric illnesses, and in a long-term stress state, people can be more prone to depression or other mental disease which will also increase the risk of infection. Therefore, it is necessary to investigate the psychological state of the first-line anti-epidemic medical staff and give them necessary psychological interventions if they have anxiety or depression.^[11]
^[12] Institutions must support these individuals as they face enormous stress that can negatively impact their emotional and physical well-being.^[13]

The effect of job satisfaction

Job satisfaction causes a series of influences on various aspects of organizational life. Some of them such as the influence of job satisfaction on employee productivity, loyalty and absenteeism. Their satisfaction within their jobs increases motivation and morale to contribute to the system and their involvement leads to better decisions. Job satisfaction scale has nine dimensions, called: Pay, promotion, supervision, benefits, rewards, operating procedures, coworkers, work itself, and communications. From these dimensions "work itself satisfaction" was the most effective factor both on occupational commitment and job performance of employees.^[14]

Dissatisfied employees are more likely to show intention to leave their job and this intent is associated with actual turnover.^[15&16] There are many possible moderating variables, the most important of which seems to be rewards. If people receive rewards, they feel are equitable, they will be satisfied & this is likely to result in greater performance effort. Also, recent research evidence indicates that satisfaction may not necessarily lead to individual performance improvement but does lead to departmental & organizational level improvements.^[17]

Job satisfaction is an important factor influencing the health of workers and is directly related to quality of care.^[18. 19] The quality of services is linked to the skills, motivation, and satisfaction of the workers providing the healthcare services. As per the World Health Organization (WHO), there is a global

concern for the shortage of human resource in health care.^[20]

Healthcare delivery has changed dramatically in the past few decades, focusing mainly on community-oriented primary healthcare approach^[21]. The main primary healthcare providers in any setting remain to be the family physicians and primary health care physicians; their role varies from providing coordinated and continuous primary healthcare, health education, counseling, and so on. Recently, a visible undesirable change is seen in the way family physicians and primary health care physicians deliver healthcare. The main reason identified in the studies is low satisfaction level of those physicians. As a frontline healthcare provider to the community, it becomes particularly important to recognize factors affecting their job satisfaction in their practices and working environment and then work on those factors to enhance satisfaction and hence enhance performance.^[22]

Primary-care physicians and family physicians are the first medical practitioners contacted by a patient, due to several factors such as ease of communication, accessible location, familiarity, and increasingly issues of cost and managed care requirements. Patients whose physicians report greater practice satisfaction describe significantly greater satisfaction with their care.^[23, 24]

The health care system during COVID 19

Facing this large-scale infectious public health event, health care workers on the front line who are directly involved in the diagnosis, treatment, and care of patients with COVID-19 are at risk of developing psychological distress and other mental health symptoms. The ever-increasing number of confirmed and suspected cases, overwhelming workload, depletion of personal protection equipment, widespread media coverage, lack of specific drugs, moral dilemma, violence, despair, isolation from the family and feelings of being inadequately supported may all contribute to the mental burden of these health care workers. Occupational mental health impairment affects performance, interpersonal communication, productivity, commitment, and job satisfaction.^[25]

Primary and family Physicians as a part of health care providers play an essential role in the battle against the COVID-19 pandemic. Considering the fact that this pandemic has forced many changes in different aspects of healthcare services delivery and workload, this is expected to have emotional, physical, and psychological impacts on them.^[26]

Due to the importance of human resources in providing quality PHC services, it is integral for PHC leaders to assess their Quality of work life (QWL)

and to understand their organizational and career intentions. Such procedures may assure the continuity and improvement of the health services being provided.^[27]

Workforce satisfaction is the cornerstone of well-functioning health systems. Prior to the pandemic, studies showed that physicians' professional satisfaction is associated with achieving higher quality of care, greater patients' satisfaction, and better levels of treatment adherence. Moreover, during this critical time of the pandemic, physicians' satisfaction proved to be an essential motivational source to reduce physicians' burnout and to retain the medical workforce.^[28]

Aim of the study:

To assess the job satisfaction among doctors working in family health care centers and doctors working in primary health care centers during COVID 19 pandemic and the factors associated with it and to compare the degree of job satisfaction among candidate in the two mentioned centers.

Subject & Methods:

A descriptive cross-sectional study was carried at the primary health care centers and family health care centers (14 PHC and 15 FHC) in AL-Rusaffa directorat, Baghdad, Iraq. The study sample was doctors working in the mentioned centers. The study extended from the first of February 2022 till the 30th of December 2022.

The data were collected by self-administered questionnaire after having verbal consent of doctors working in the mentioned centers through two to three visits per week; the questionnaire was given to the candidates in presence of the researcher for any clarification. The questionnaire was constructed based on information collected from Warr Cook satisfaction scale,^[29] in addition to questions made by the researchers, and to the revision done by three experts in researches and questionnaires.

In AL Rusafa directorate, four health sectors were chosen conveniently, from those 14 PHCs and 15 FHCs were chosen also conveniently and then a hundred physicians were chosen also conveniently. The candidates were interviewed and questionnaires were distributed to those who agreed to participate and met the inclusion criteria and then were recollected from them.

Research tool was questionnaire was written in English language included two parts.

First part:

Included sociodemographic characteristics of studied sample:

- Age
- Gender: male, female

- Marital status: married, single, widow or Divorce
- Number of children
- Work place: Is it PHC or Family health center?
- Qualification: board, diploma or MBCHB
- Specialty:
- How many years have you been working in the PHCC?
- Years of experience since graduation from medical college
- Do you have any chronic disease? Yes or no
- Have you been infected with corona infection and diagnosed by positive PCR? Yes or No
- Were you the source of corona infection to your family? yes or No
- Number of ordinary leaves per year
- How many doctors working in your PHC?
- How many patients do you examine per day?

Second part:

Job satisfaction questions consisted of 26 questions. The candidate chose his or her satisfaction rate according to the Likert scale (not satisfied, somewhat satisfied, neutral satisfied, very satisfied and extremely satisfied)

- Work and Workplace (During Corona Pandemic)
 - Accessibility to the health care center [less than 15 minutes by car].
 - Suitability of Physical environment at work.
 - Freedom to choose one's own method of treatment.
 - Support from one's colleagues when needed.
 - Competence in handling daily practice.
 - The recognition the one gets for good work.
 - The amount of responsibility one is given.
 - One's rate of pay.
 - The opportunity to use one's abilities.
 - The hours of work.
 - The amount of variety in one's job.
 - The work equally distributed among doctors at the PHCC or FHC.
 - Time needed for examination.
- Supervisor and Management (During Corona Pandemic).
 - One's manager as a person.
 - The knowledge and experience of one's manager.
 - Communication with one's manager easily.
 - The way the organization is managed.
 - The attention to the suggestion one makes.
- Specifically related to Corona Pandemic:
 - One's Satisfaction about
 - Work stress, extra work outside one's PHCC (malls, Patient's home visits).
 - Assignments to other health care centers according to the need.

- One's center being a center of vaccination from the start of pandemic without providing additional staff.
 - One's center is a center for PCR for Corona diagnosis.
 - Assignment to isolation hospitals.
 - Availability of personal protective equipments available in one's center
- Benefits and Rewards
- No extra payment for extra work during corona epidemic.
 - Letter of thanks and incentive during corona epidemic

➤ The total satisfaction scale was calculated according to the Likert scale of 5 point multiplied by 24 questions that was answered by all participants, so score of ≤ 72 is considered low, while score of (73-96) is considered fair, and score of >96 is considered high.

Data analysis of data was carried out using the available statistical package of SPSS-28 (Statistical Packages for Social Sciences- version 28). Data were presented in simple measures of frequency, percentage, mean, standard deviation, and range (minimum-maximum values). The significance of difference of different percentages (qualitative data) was tested using Pearson Chi-square test with application of Fisher Exact test whenever applicable.

Statistical significance was considered whenever the P value was less than 0.05.

Ethical and Official approvals;

The research proposal was fully discussed and approved by the Council of Iraqi Board of Medical Specialization, the agreement of the ethical committee of AL-Rusafa Health Directorate was obtained before the collection of data, the agreement of each sector and center that was visited by the researcher was also granted before data collection and a verbal consent from each participant was granted during data collection, and they were informed that all personal information would be kept anonymous, and the data will be exclusively used for the sake of this study.

Results:

Forty one percent of the participants aged 30-39 years. 76% were females, 72% of the participants were married, and 33.8% of them had three children. And only 16% had chronic diseases as shown in table 1.

Fifty percent of the participants were working in primary health care centers and the other half were working in family health care centers. 43% of them had board degree, 67% of them are in the family medicine specialty, and 51% of the participants were working in the health centers for less than 10 years. 64% of the participants were infected by COVID 19 (positive PCR) and 34% were the source of COVID19 to their families as shown in table 2.

Table (1): Sociodemographic characteristics & Chronic Diseases of The Participants

		No.	%
Age	30---39	41	41.0
	40---49	29	29.0
	50---59years	30	30.0
	Mean $\pm$ SD (Range)	42.7 $\pm$ 8.0 (31-69)	
Gender	Male	24	24.0
	Female	76	76.0
Marital stat	Married	72	72.0
	Single	23	23.0
	Widowed	2	2.0
	Divorced	3	3.0
Number of children (n=77)	No	8	10.4
	1	8	10.4
	2	24	31.2
	3	26	33.8
	4	8	10.4
	5	3	3.9
Have chronic diseases	Yes	16	16.0
	No	84	84.0

Table (2): Work Related Characteristics of The Sample

Work Related Characteristics		No.	%
Qualification	Board	43	43.0
	Diploma	17	17.0
	MBChB	40	40.0
Specialty	Medicine	6	6.0
	Surgery	6	6.0
	Gyne & Obstet	17	17.0
	Paediatrics	2	2.0
	Family Medicine	67	67.0
	GP	2	2.0
Years of working in the PHCC	<10years	51	51.0
	10---29 years	49	49.0
	Mean±SD (Range)	10.0±6.6 (1-29)	
Years of experience since graduation from medical college	<10years	16	16.0
	10---19	47	47.0
	20---29years	37	37.0
Number of ordinary leaves per year	20---29	14	14.0
	30---39	86	86.0
Had been infected with COVID-19 infection (positive PCR)	Yes	64	64.0
	No	36	36.0
The source of COVID-19 infection to family	Yes	34	34.0
	No	66	66.0
Have a private clinic	Yes	40	40.0
	No	60	60.0
Number of doctors working in PHC	3	33	33.0
	4	31	31.0
	5	14	14.0
	6	7	7.0
	7	10	10.0
	>7	5	5.0
Number of patients examine per day	<20	7	7.0
	20---39	31	31.0
	40---59	28	28.0
	60---79	19	19.0
	=>80	15	15.0
	Mean±SD (Range)	60.9±25.8 (10-100)	
Number of programs responsible for in PHCC	No	3	3.0
	1	7	7.0
	2	7	7.0
	3	22	22.0
	4	37	37.0
	5	15	15.0
	>5	9	9.0

Regarding job satisfaction among samples most participants were not satisfied in the following items rate of pay, (it is OK that there is "no extra payment" for extra work during COVID-19 pandemic (87%), Certificates of appreciation and incentives during

COVID-19 pandemic (65%) while only 40% were satisfied about availability of protective equipment. Eighty nine percent of the participants had low score ≤72, and only 1% had high score >96. (Table 4).

Table (3): Job satisfaction among the sample

	Not satisfied	Somewhat satisfied	Neutral	Very satisfied	Extremely satisfied
	No (%)	No (%)	No (%)	No (%)	No (%)
Easy access to health care center (less than 15 minutes by car)	13	24	42	15	6
Suitability of physical environment at work	13	34	45	8	-
Freedom to choose own method of treatment	15	34	43	7	1
Support from colleagues when needed	7	23	46	15	9
Competence in handling daily practice	4	43	41	11	1
The recognition to get for good work	21	39	35	5	-
The amount of responsibility given	15	33	44	7	1
The rate of pay	49	26	23	2	-
The opportunity to use abilities	20	42	31	7	-
The hours of work	28	29	35	8	-
The amount of variety in job	21	32	40	7	-
The work equally distributed among doctors at the PHCC or FHC	10	26	48	15	1
Time needed for examination	26	21	39	12	2
The manager as a person	1	10	53	29	7
The knowledge and experience of the manager	3	16	42	34	5
Communicate with the manager easily	1	8	45	36	10
The way the organization is managed	2	18	45	32	3
The attention to the suggestion made	8	20	45	21	6
Work stress, extra work outside the PHCC (malls, patient's home visits)	53	24	17	3	3
Assignments to other health care centers according to the need	51	30	16	2	1
The center being a center of vaccination from the start of pandemic without providing additional staff	24	31	32	11	2
The center is a center for PCR for COVID-19 diagnosis (n=43)	14	17	9	3	-
Assignment to isolation hospitals (n=20)	12	4	3	1	-
Availability of personal protective measures in the center	2	10	46	40	2
It is OK that there is "no extra payment" for extra work during COVID-19 pandemic	87	7	5	1	-
Certificates of appreciation and incentives during COVID-19 pandemic	65	20	12	3	-

Table (4): Total satisfaction score

	Scale	No	%
Total Satisfaction Score (Q26)	Low (<=72)	89	89.0
	Fair (73-96)	10	10.0
	High (>96)	1	1.0
	Mean±SD (Range)	60.9±10.5 (31-98)	

There was no statistical association between satisfaction score and sociodemographic and chronic diseases of the participants. But, there was a significant statistical association between type of the doctors working in the health care centers and job satisfaction. Also, there was significant statistical association between number of doctors working in the health center and job satisfaction

Discussion:

Job satisfaction in the healthcare setting is an important indicator of the quality of healthcare services offered by healthcare workers to their patients. Therefore, assessing job satisfaction in the field of health management is essential because job satisfaction can affect the quality of healthcare services. The presence of healthcare workers who are satisfied with their job can enhance productivity and the quality of healthcare service provided by the healthcare setting.^[30]

One of the unfortunately major problems that present in this study was low satisfaction rate of doctors working in the health care centers and all the consequences that came with it. In the current study it was found that 89% of the participants had low satisfaction, 10% of the participants had fair satisfaction and only 1% of the participants had high satisfaction. The low satisfaction rate may be related to exhaustion of doctors during Corona pandemic and assigning their duties beyond their capacity, low supply of medication and equipment needed for examination,^[1]

separation from their families, and the routine work and paper work. While 7.6% satisfied participants in a study by AbdulLateef *et al.* in 2020 in KSA among physicians.^[18] Also in a study by Alotaibi *et al.* 2022 in Saudi Arabia, only 7.3% were satisfied^[31] and 14.9% in a study by Ismail *et al.* in 2022 in Qatar.^[28] In another study by Entisar AlJumail *et al.* in 2021, 36.4% of doctors working in PHC were satisfied.^[32] 23.7% of the GPS were satisfied in a study by Suleiman *et al.* in 2020 in Jordan,^[33] in another study by Alqahtani, *et al.* in 2022 the level of satisfaction was low among physicians who were attending the COVID-19 pandemic for the last three years with satisfaction of 26.7% only.^[34]

In this study, only 8% of the participants were very satisfied about the work environment which might be explained by the unsuitable physical environment in the health centers. In a study by AbdulLateef *et al.* 2020, only 8.4% were satisfied about working environment,^[18] while in a study carried in Basra by Rana *et al.* in 2019, 52.2% of them were satisfied.^[35] Regarding support from the colleagues, only 24 % were very and extremely satisfied which might be explained by already busy colleagues with their work that don't permit them to be of good help to their

colleagues. In a study that was carried by Bawakid *et al.* in 2017 in which the participants had less cooperative colleague doctors^[19]. Same thing in another study by AbdulLateef *et al.* in 2020 in which the dissatisfied participants were 37.8%^[18].

In the current study, only 12% of the participants were very and extremely satisfied about management and handling daily practice, it might be explained by the restriction of the doctors working in the health centers to specific protocols and loss of freedom to choose a preferred method of treatment and also the loss of autonomy. While the overall satisfaction of physicians towards COVID-19 management was 77% in a study by Ismail *et al.* in 2022 in Qatar.^[28]

In the current study, almost half of the participants (49%) were not satisfied about their salary and only 2% were very satisfied its simply because of low pay for doctors in Iraq which is about 900 \$ for resident doctors and about 1500-2000\$ for specialist doctors. 25.2% were satisfied about the payment in a study by AbdulLateef *et al.* in 2020,^[18] in another study by Rana *et al.* in 2018, 25.4% were satisfied about their salary.^[35]

Only 8% of the participants were very satisfied about the hours of work since most of the patients are seen before 12 pm, and the last two hours spares clients. In a study by Rihab *et al.* in 2019 in Kuwait, most of the participants were working 7 hours per day while the participants that were working less than 6 hours per day were more satisfied.^[36] While in a study by Tharaya *et al.* in 2019, a total of 6.3% of participants working in urban areas in Oman suffered burnout and working over 40 hours per week was the most important risk factor for decrease job satisfaction.^[37]

About half of the participants had neutral satisfaction about the manager and their management, this satisfaction is considered low and is preferred to be considered, it can be explained by many factors like lack of training on management skills, personal variations, and lack of incentives. In a study by AbdulLateef *et al.* in 2020, 44.5% of the participants were satisfied about the management,^[18] while in another study by Rana *et al.* in 2018 95.5% were satisfied.^[35]

Forty percent of the participants in the current study were very satisfied about the availability of personal protective equipment (PPE), while in a study by Aiman *et al.* in 2020 in Jordan, only 18.5% had PPE available to use^[23], in another study by Alrawashdeh *et al.* in 2021 the participants expressed that availability and sufficient access to PPE was a distressing concern to them at their workplace.^[26] Also, in a study by Ismail *et al.* in 2022 in Qatar showed that 39.8% of the participants were satisfied about the availability of PPE equipment at their health center.^[28] While in a study by Suleiman *et al.*

in 2020 in Jordan, only 18.5% were satisfied about it^[33].

Most of the participants were not satisfied about the incentives and letter of thanks (87%, 65% respectively) in comparison to the additional work and stress added during the pandemic. In study by AbdulLate *et al* in 2020 KSA, a large proportion of respondents were dissatisfied about the contingent rewards and fringe benefits (83.2%, 76.5% respectively),^[18] same thing in a study in Jordan by Aiman *et al.* in 2020 that showed dissatisfied participants of 71.4%.^[23] Also, in a study by Alqahtani, *et al.* in 2022 IN KSA, only 4.7% were satisfied about the incentives for the extra work during covid pandemic.^[34]

Most of the participants were between the age of 30 and 39 years old, the younger age doctors were less satisfied than the older doctors, maybe explained by their disappointment after expecting a different reality and with getting older they get use to their reality as their possibility to adapt increases and it is also possible that young physicians have greater demands and, as age advances their demands decrease. Same thing was found in a study by AbdulLateef *et al.* in 2020^[18]. This was consistent with other studies done in other countries like Kuwait, which show that older doctors are more generally satisfied with their jobs than younger doctors by Rihab *et al.* in 2019^[36], in another study by Alrawashdeh *et al.* in 2021 showed with an increase in age, there is a statistically significant increase in job satisfaction.^[26] While in study by Alqahtani, *et al.* in 2022 most of the participants were younger than 30 years old, the young doctors were more satisfied.^[34]

The majority of the participants were female's physicians and they were more satisfied than the male physicians, The reason that the female doctors are higher in number than males might be because of stable environment and absence of night shifts which is beneficial for those who care about warm family environment. In a study by AbdulLateef A Allebdi *et al.* in 2020 there was no much difference between the satisfaction of the males and female participants^[18]. Same thing in a study by Rihab *et al.* in 2019^[36], while in a study by Reem *et al.* in 2021 in which male doctors were less in number yet more satisfied^[38]. In a study by Alqahtani *et al.* in 2022 males were more than females and they were more satisfied 74.3%.^[34]

Most of the participants were married and 71.9 % of the participants that had low satisfaction were from the married, this could be explained by increased responsibilities in case of marriage. While in a study by AbdulLateef *et al.* in 2020 the married was equivalent.^[18] In another study by Rihab *et al.* in

2019 in Kuwait, the unmarried participants were more satisfied.^[36] While in a study by Alqahtani *et al.* in 2022, the married participants were significantly more satisfied (69.9%) and they were higher in number than the unmarried^[34]. Also, a study by Najla *et al.* in 2022 in Jordan, the married physicians were significantly more satisfied.^[39]

In this study most of the participants had three children and 37.5% had low satisfaction could be due to their multiple responsibilities, in a study by Rihab *et al.* in 2019, the participants that had no children were more satisfied.^[36] While in a study by Najla *et al.* in 2022 the physicians that had children were significantly more satisfied.^[39]

In the current study. 16% of the participants had chronic diseases and all of them had low satisfaction score, this could be because of the extra burden of the sickness similar to a study by Rihab *et al.* in 2019 in which 47.9% of the participants who had diabetes were dissatisfied.^[36] In the current study 50% of the participants were working in PHC and 50% were working in FHC, the doctors who were working in FHC were more satisfied than the doctors working in PHC (81.2, 18.2% respectively), the dissatisfaction of the PHC doctors may be due to increased workload, less organized environment, less training on the programs and could be personal like ambition to get higher degree in the specialty yet inability due to certain obstacles, quite the opposite to a study by AbdulLateef *et al* 2020 in Saudi Arabia in which doctors with no specialty were more satisfied compare to specialized (10.6% and 0.0 % respectively)^[18], in a study by Rihab *et al.* in 2019 the specialist were more satisfied than the not specialist and they were more than the non-specialist participants.^[36] In a study by Ismail *et al.* in 2022 in Qatar showed that participants who were general practitioners and others (i.e., otolaryngologists, ophthalmologists, dermatologists) were significantly more likely to be satisfied with maintaining work safety at PHC centers compared to family physicians.^[28] While in a study by Alqahtani *et al.* in 2022 during covid pandemic the family specialist participants were 64 from them 54(84%) were dissatisfied and the GP doctors were 122 from them 94 (77%) had dissatisfied^[34].

The current study showed that majority of the participants had experience of less than ten years and they are less satisfied and that with increasing the year of experience there is increasing in satisfaction, this might be explained by getting used to the environment or getting dispirit with decrease in the demands, similar to a study by Rihab *et al.* in 2019 that was in Kuwait there was increase in job satisfaction compared to past experiences in primary health care centers in Kuwait.^[36] In study by Ismail

et al. in 2022 during covid 19 pandemic showed that physicians who had more than ten years of experience in practice were significantly more likely to be satisfied.^[28]

In this study 64 of the participant were infected with covid 19 virus and tested positive by PCR, 65.2% of those with low satisfaction tested positive by PCR which might be due to the psychological upset that comes with the infection that add extra burden on the doctors. In a study by Alrawshdeh *et al.* in 2021, 15.8% of the participants tested positive were satisfied^[26]. In a study by L Jefferson *et al.* in 2022 showed increase stress and anxiety with lower job satisfaction in GPS that got infected with covid 19 virus.^[40]

In the current study most of participants were seeing 50-59 patients per day and those were the less satisfied with decrease in the satisfaction with increasing the number of patients seen by each doctor which is expected considering the exhaustion that the doctors are going through, in a study that was carried by Bawakid *et al.* in 2017 A positive correlation was noted between the number of patients per day and burnout^[19]. In another study by Rihab *et al.* in 2019, seeing less than 50 patients per day are more satisfied.^[36] In our study there is statistically significant association between the number of doctors working in the centers with their satisfaction score and this high significance might be explained by decrease in workload, fewer patients are seen by each doctor and more time for examination.

In conclusion, the overall satisfaction of doctors was low with significant statistical association between the number of doctors working in the centers and satisfaction and the type of the centers.

References:

1. Farah Azaliney Binti Mohd Amin, A Review of the Job Satisfaction Theory for Special Education Perspective, Turkish Journal of Computer and Mathematics Education (TURCOMAT), Vol12 No. 11 (2021). <https://www.turcomat.org/index.php/turkbilmat/article/view/6737>
2. Marcela-Sefora Nemteanu, Vasile Dinu, Dan-Cristian Dabija. Job Insecurity, Job Instability, and Job Satisfaction in the Context of the COVID-19 Pandemic, Journal of Competitiveness, 2021.02; 13(2): 65–82
3. Salih Mollahallolu. Healthcare Employee Satisfaction Survey, Ankara 2010, [https://cdn1.sph.harvard.edu/.../hrh_satisfaction_in_turkey.:](https://cdn1.sph.harvard.edu/.../hrh_satisfaction_in_turkey.)
4. Marchand, C. and Peckham, S.,. Addressing the crisis of GP recruitment and retention: a systematic review. Br J Gen Pract, 2017;67(657), pp. 227-237.
5. Lindsay E, Woollorton E, Hendry P, Williams K, Wells G. Family physicians' continuing professional development activities: Current practices and potential for new options. Can Med Educ J. 2016; 7:e38–46.
6. Prasoon, R. and Chaturvedi, K.R., Life satisfaction: a literature review. The Researcher-International Journal of Management Humanities and Social Sciences, 2016. 1(2), pp.25-32.
7. Linzer M, Poplau S, Brown R, Grossman E, Varkey A, Yale S, *et al.* Do work condition interventions affect quality and errors in primary care? Results from the healthy work place study. J Gen Intern Med. 2017; 32: 56–61.
8. Abdulrahman KB;Alnosian MY; Alshamrani AA; ALassaf HI; Aldayel AS; Alaskar YA; Alshehri MA; Job satisfaction among family medicine physicians in Saudi Arabia, Journal of family medicine and primary care, Journal of Family Medicine and Primary Care , 2021;10(8):p 2952-2957.
9. Aazami S, Shamsuddin K, Akmal S, Azami G. The relationship between job satisfaction and psychological/physical health among Malaysian working women. Malays J Med Sci. 2015; 22:40–46.
10. Dall'Ora, C., Ball, J., Recio-Saucedo, A. and Griffiths, P. Characteristics of shift work and their impact on employee performance and wellbeing: A literature review. International journal of nursing studies, 2016; 57: pp.12-27.
11. Zhu J; Sun L; Zhang L;Wang H; Fan A;Yang B; Li W; Xiao S; Prevalence and Influencing Factors of Anxiety and Depression Symptoms in the First-Line Medical Staff Fighting Against COVID-19 in Gansu, Frontiers in psychiatry, 2020; April 29;11:386. doi:10.3389/fpsy.2020.00386. eCollection 2020.
12. Wu, Ekiz, Bao,. Genomic characterisation and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding, Lancet, 2020 Feb 22; 395(10224):565-574.
13. Morgantini LA; Naha U; Wang H; Francavilla S; Acar Ö; Flores JM; Crivellaro S; Moreira D; Abern M; Eklund M;Vigneswaran HT; Weine SM; Factors contributing to healthcare professional burnout during the COVID-19 pandemic: A rapid turnaround global survey, PloS one, 2020; 15:9.
14. Ismail Bakan, Effects of Job Satisfaction on Job Performance and Occupational Commitment, March 2014, International journal of

- management and information technology 9(1):1472-1480
15. Honarvar B, Lankarani KB, Ghahramani S, Akbari M, Tabrizi R, Bagheri Z, et al. Satisfaction and dissatisfaction toward urban family physician program: A population based study in Shiraz, Southern Iran. *Int J Prev Med.* 2016; 7:3.
 16. Ojakaa D, Olango S, Jarvis J. Factors affecting motivation and retention of primary health care workers in three disparate regions in Kenya. *Hum Resour Health.* 2014; 12:33.
 17. Bakotić D. Relationship between job satisfaction and organisational performance. *Econ Res Istraživanja.* 2016; 29:118–130.
 18. AbdulLateef A Allebdi et al., Level and determinants of job satisfaction among Saudi physicians working in primary health-care facilities in Western Region, KSA, *J Family Med Prim Care.* 2020 Sep 30;9(9):4656-4661.
 19. Bawakid K, Abdulrashid O, Mandoura N, Shah HBU, Ibrahim A, Akkad NM, et al. Burnout of physicians working in primary health care centers under ministry of health Jeddah, Saudi Arabia. *Cureus.* 2017; 9:e1877.
 20. World Health Organization. Global health workforce shortage to reach 12.9 million in coming decades [Internet]. WHO. World Health Organization. 2014.
 21. Bawakid K; Rashid OA; Mandoura N; Shah HBU; Mugharbel K; Professional satisfaction of family physicians working in primary healthcare centers: A comparison of two Saudi regions, *Journal of family medicine and primary care;* 2018 Sep-Oct;7(5):1019-1025.
 22. Ashraf H, Shah N, Anwer F, Akhtar H, Abro MA, Khan A, et al. Professional satisfaction of family physicians in Pakistan – Results of a cross-sectional postal survey. *J Pak Med Assoc.* 2014; 64:442–446.
 23. Aiman Suleiman, Isam Bsisu, Hasan Guzu, Abeer Santarisi, Murad Alsatari, Ala' Abbad, Preparedness of Frontline Doctors in Jordan Healthcare Facilities to COVID-19 Outbreak , *IJERPH* , 2020;17(9):
 24. Monsalve-Reyes CS;San Luis-Costas C;Gómez-Urquiza JL;Albendín-García L;Aguayo R;Cañadas-De la Fuente GA; Burnout syndrome and its prevalence in primary care nursing: a systematic review and meta-analysis, *BMC family practice;* 2018 May 10;19(1):59-64.
 25. Abd-Ellatif EE;Anwar MM;AlJifri AA;El Dalatony MM; Fear of COVID-19 and Its Impact on Job Satisfaction and Turnover Intention Among Egyptian Physicians, *Safety and health at work*, Volume 12, Issue 4, December 2021, Pages 490-495.
 26. Alrawashdeh HM; Al-Tammemi AB;Alzawahreh MK; Al-Tamimi A; Elkholy M; Al Sarireh F; et al. Occupational burnout and job satisfaction among physicians in times of COVID-19 crisis: a convergent parallel mixed-method study, *BMC Public Health* , [2021-04-28];21 (1): 811.
 27. Andrew H. Van de Ven. What matters most to patients? Participative provider care and staff courtesy. *PLoS One.* 2020 Jul 9;15(7).
 28. Ismail M; Joudeh A; Al-Dahshan A; Nur MA; Hamed El Aguizy F; Selim N; Primary healthcare physicians' satisfaction towards work safety and personal protective equipment during the COVID-19 pandemic in Qatar: A cross-sectional study, *Infection, disease & health.* *Infect Dis Health,* 2022 08 ; 27(3): 111-118.
 29. Warr, P.J., Cook, J. and Wall, T. Scales for the Measurement of Some Work Attitudes and Aspects of Psychological Well-Being. *Journal of Occupational Psychology*, (1979); 52: 129-148.
 30. A E Arafa, F Anzengruber 1, A M Mostafa, A A Navarini . Perspectives of online surveys in dermatology-*J Eur Acad Dermatol Venereol.*2019 Mar; 33(3):511-520.
 31. Alotaibi AHM, Abdulaziz Hanif M Alotaibi, Abdulaziz Mohsen H Alotaibi, Eid Bliheed Alwahbi, Mohammed Saud Alkathlan, Saud Mohammed Alnaddah et al., Job Satisfaction among Primary Healthcare Workers in Saudi Arabia and Associated Factors: A Systematic Review. *J Family Med Prim Care Open Acc,* (2022); 6: 185.
 32. Entisar AlJumail, Unaib Rabbani, Job Satisfaction among Primary Health Care Workers in Buraidah, Qassim, *World Family Medicine Journal/Middle East Journal of Family Medicine* , 2021;19(12): 27-33.
 33. Suleiman A, Bsisu I, Guzu H, Santarisi A, Alsatari M, Abbad A, et al. Preparedness of frontline doctors in Jordan healthcare facilities to COVID-19 outbreak. *Int J Environ Res Public Health.* 2020; 17(9).
 34. Alqahtani,MohammedM,Hassan M. Al Shaiban, Saeed H. Alqahtani, Amer M. Alamri, Ahmed M Al Manea, et al., Primary health care centers Physicians' satisfaction toward COVID-19 management in Asser Region, Saudi Arabia, *Cardiometry.* August 2022; Issue 23: 807-815.
 35. Rana K. Ali & Omran S. Habib , A study on job satisfaction of family physicians in Basrah,2018,. *The Medical Journal of Basra University*, 2019; 37(2): 51-58.

36. Rihab Al-Wotayan, Mahmoud Annaka, Maqsood Nazaret *et al.*, Job Satisfaction and Mental Health among Physicians in Primary Health Care Centers in Kuwait – January 2019, *Health* 11(06):692-710
37. Tharaya Al-Hashemi, Salim Al-Huseini, Mohammed Al-Alawi, Naser Al-Balushi, Hamed Al-Senawi, Manal Al-Balushi *et al.*, Burnout Syndrome Among Primary Care Physicians in Oman, *Oman Med J*, 2019 May;34(3):205-211.
38. Reem A. Alakeel, Ali A. Alaithan, Nawaf Alokeil, and Mostafa Kofi, Family physician's perception towards virtual care during COVID-19 pandemic: A cross-sectional study, *J Family Med Prim Care*. 2021 Dec; 10(12): 4514-18.
39. Najla Dar-Odeh ,Eman F Badran ,Rula M Darwish, Osama Abu-Hammad, Career satisfaction among physicians, dentists and pharmacists: A study from Jordan, *Asia Pacific Journal of Health Management*, 2022; 17(3): 32-42.
40. L Jefferson, S Golder, GP wellbeing during the COVID-19 pandemic: a systematic review - *British Journal of general practice* , 2022; 72: 718-20.