








ORIGINAL ARTICLE

**MOTIVATION AND SATISFACTION OF HEALTHCARE WORKERS
INVOLVED IN SURFACE CLEANING AND DISINFECTION*****HIGHLIGHTS**

1. Lack of training and difficulties in accessing protocols.
2. Job satisfaction and demotivation with the pay received.
3. Gender and schooling as variables for motivation and satisfaction.

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ABSTRACT

Objective: To verify the levels of motivation and satisfaction of workers responsible for cleaning and disinfecting surfaces. **Method:** This was a cross-sectional, quantitative study of 69 healthcare workers at a Severe Acute Respiratory Syndrome Treatment Unit in Mato Grosso do Sul, Brazil. Data was collected between April and May 2022, using a sociodemographic and professional questionnaire and Motivation and Job Satisfaction Scales. Categorical variables are represented by absolute and relative frequencies, numerical by mean, standard deviation, median, and interquartile range. **Results:** The variables 'Because I like this job' (5.5), 'Because this job fits in with my personal values' (5.16), and 'Because my job is my life, and I don't want to fail' (4.25) showed the highest mean scores for motivation. There was agreement on job satisfaction (4.07) and not wanting another job (2.6). **Conclusion:** Knowledge about everyday organizational life in health services has increased, enabling actions to be planned that have an impact on working conditions.

KEYWORDS: Health Personal; Motivation; Personal Satisfaction; Disinfection; Pandemics.

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INTRODUCTION

Severe Acute Respiratory Syndrome (SARS), one of the complications of COVID-19, has a high morbidity and mortality rate and is characterized by the simultaneous presence of flu syndrome, dyspnea, and/or signs of severity (oxygen saturation of less than 95% on room air, respiratory discomfort and bluish coloration of the lips or face). Due to SARS in the pandemic period, Severe Acute Respiratory Syndrome Treatment Units (SARS) were organized to treat people who needed constant monitoring of vital signs and the use of ventilatory support and highly complex medications. In these services, there is a high turnover of people and a demand for efficiency and speed in carrying out procedures, to maintain the lives of individuals, who mostly have unpredictable signs and symptoms and a high risk of death¹⁻³.

The COVID-19 pandemic has represented a growing concern in the field of universal public health and has affected the field of work, causing changes in the organization and routine of various institutions and services. In the health sector, workers have continued to work face-to-face and have been exposed to risky conditions for their health and safety, as well as high levels of stress. Compared to the general population, healthcare workers are more exposed to contamination, which generates a considerable level of distress. Other factors such as long working hours, work overload, professional burnout, a shortage of personal protective equipment (PPE), a lack of scientific basis for dealing with infection, and uncertainty about vaccination have contributed to the increase in illness among health professionals⁴⁻⁵.

Workers responsible for cleaning and disinfecting surfaces in health services have a working practice historically marked by invisibility, precarious labor relations, oppression, and economic and social inequalities. This professional category does heavy and routine work, with exposure to illness and living with the pain, suffering, and death of patients. With the COVID-19 pandemic, there has been an increase in working hours, vulnerability, and fear of contamination, as well as worsening levels of mental and physical health for these workers⁶⁻⁷.

The scientific literature on the daily organizational life of workers involved in cleaning and disinfecting surfaces in health services for people with SARS during the COVID-19 pandemic is scarce. It is believed that factors related to the profile of the workers, the characteristics of the work carried out and the micro and macro contexts in which they find themselves developing their activities can have repercussions on motivation and job satisfaction.

Motivation at work can be defined as the degree to which an individual is willing to exert and maintain effort toward organizational goals. The motivation of healthcare workers is an important determinant of performance and professional effort, as well as the organization and quality of healthcare provision. Low motivation among health workers contributes to events such as absenteeism, poor quality in the execution of activities, and compromised care. Factors such as working hours, remuneration, recognition from the employer and the community, working conditions and environment, promotion of training, and professional development can all have an impact on the motivation of health workers⁸.

Job satisfaction is understood as a worker's attitude towards their work based on beliefs and values developed by the worker. Job satisfaction is determined by the interaction between workers and the characteristics of the work environment. When the work environment ceases to be a source of motivation, satisfaction, and professional fulfillment, suffering and illness are common⁴.

Based on the above and to clarify the gaps regarding the elements of everyday organizational life in services aimed at caring for people with SARS, during the Covid-19 pandemic, this study asks: what are the levels of motivation and satisfaction of workers responsible for cleaning and disinfecting surfaces?

The objective was to verify the levels of motivation and satisfaction of workers responsible for cleaning and disinfecting surfaces.

METHOD

This is a descriptive, cross-sectional study carried out at a SARS-Unit linked to an Emergency Care Unit (ECU) located in Mato Grosso do Sul, Brazil. This unit belongs to the Brazilian Unified Health System (SUS) and carries out outpatient, urgent, and emergency activities, of medium and high complexity, 24 hours a day during the Covid-19 pandemic.

The study population consisted of 90 health workers involved in cleaning and disinfecting surfaces at the SARS-Unit. Inclusion criteria were working in the institution as a nursing professional (assistants, technicians, and nurses) and professionals from the hygiene and cleaning team, as well as being emotionally and physically able to answer the questions. Professionals with medical certificates or on vacation during the data collection period were excluded. The non-probabilistic sample consisted of 69 participants, 57 nursing professionals, and 12 - Sociodemographic and professional questionnaires prepared by the authors. For analysis purposes, the variables gender (male and female), length of professional experience (< 3 years and ≥ 3 years), and schooling (< 12 years of study and > 12 years of study) contained in the instrument were tested; cleaning and sanitizing staff.

Data was collected in person in April and May 2022, using the following self-administered instruments:

— Sociodemographic and professional questionnaire prepared by the authors. For analysis purposes, the variables gender (male and female), length of professional experience (< 3 years and ≥ 3 years) and schooling (< 12 years of study and > 12 years of study) contained in the instrument were tested;

— Motivation at Work Scale (MAWS), which measures the individual's motivation at work through 12 items organized into four (4) domains: intrinsic motivation (items 1, 2 and 3), identified motivation (items 4, 5 and 6), introjected motivation (items 7, 8 and 9) and extrinsic motivation (items 10, 11 and 12). Extrinsic motivation includes performing an activity for instrumental reasons; introjected motivation manifests behavior through self-esteem contingencies; identified motivation considers the value and meaning of the activity performed and intrinsic motivation includes interest and pleasure in work. The MAWS is a Likert scale with a total value of seven (7) points which indicates the extent to which the proposed statements represent the individual's motivation, ranging from 1 (not at all) to 7 (exactly)⁹.

— Job Satisfaction Scale, made up of six (6) items measured by a five (5) point Likert scale, with the response options being: ('completely agree', 'agree', 'indifferent', 'disagree', and 'completely disagree')¹⁰.

SPSS software version 20.0 was used to organize the data. Categorical variables were represented according to absolute and relative frequencies and numerical variables by

mean, standard deviation (σ), median, and interquartile range (IQR). The Shapiro-Wilk test was used to assess the normality of the sample ($p < 0.05$). The Mann-Whitney test was used to assess differences between groups of numerical variables. The significance level was set at 0.05.

The mean work motivation scores were classified as motivated (mean ≥ 5.0), moderately motivated (mean ≥ 4.0 and < 5.0), and poorly motivated or unmotivated (mean < 4.0). The mean job satisfaction scores were classified as agreement (mean ≥ 4.0), indifference (mean ≥ 3.0 and < 4.0), and disagreement (mean < 3.0).

The study was approved by the Research Ethics Committee of the Federal University of Mato Grosso do Sul-UFMS, opinion no. 4.317.394.

RESULTS

There was a predominance of participants aged between 41 and 50 (47.1%), female (80.9%), and with more than 12 years of schooling (58.8%). There was a predominance of nursing professionals (82.4%), workers with a monthly income of over five thousand reais (35.3%), those with more than three years of professional experience (67.7%), civil servants (73.5%) and no history of management positions (80.9%).

Among the participants, 57.9% said they had been trained in surface cleaning and disinfection by the institution; of these, 75.0% were nursing professionals, and 25.0% worked in the cleaning and disinfection team. According to 18.8% of the participants, the training took place between 2 and 5 years ago. Around 87.5% of the nursing professionals said they didn't know where and how to access the cleaning and disinfection protocols in the SARS Unit, while among the cleaning and disinfection professionals, this percentage was 12.5%. For 45% of the participants, there have been changes in the process of cleaning and disinfecting surfaces at the SARS Unit, during the COVID-19 pandemic.

According to Table 1, the mean levels of work motivation ranged from 3.69 to 5.5, and the standard deviation ranged from 1.09 to 1.89. Higher levels of work motivation among the participants were identified in only 3 of the 12 items assessed in the MAWS, and these items belonged to the intrinsic (Because I like this job a lot), identified (Because this job fits in with my values properly) and introjected (Because my job is my life, and I don't want to fail) dimensions of motivation. Lower levels of motivation at work were only identified in items belonging to extrinsic motivation, especially about the remuneration received.

The average levels of job satisfaction ranged from 0.92 to 1.27. The mean for the variable 'I am generally satisfied with my job' indicated 'agreement' on the part of the participants. The variable 'I would like to have another job because I am not satisfied', which has a negative content in its description, had a mean compatible with 'disagreement', which reflects 'agreement'. The other variables related to job satisfaction had averages indicating 'indifference' (neither agreement nor disagreement).

Table 1 - Levels of motivation and job satisfaction among study participants. Três Lagoas, MS, Brazil, 2023

Motivation at work	Me	σ	Md	IQR	Classification
Intrinsic motivation dimension					
01. Because I like this job a lot.	5.5	1.09	6	1	Motivated
02. Because I have fun doing my job.	4.93	1.36	5	2	Moderately motivated
03. Because of the moments of pleasure my work gives me.	4.91	1.65	5	2	Moderately motivated
Identified motivation dimension					
04. I chose this job because it allows me to achieve my life goals.	4.91	1.62	5	2	Moderately motivated
05. Because this job fulfills my professional goals.	4.78	1.48	5	2	Moderately motivated
06. Because this job fits in with my proper values.	5.16	1.45	5	2	Motivated
Introjected motivation dimension					
07. Because I must be the best at my job, the winner.	4.87	1.52	5	2	Moderately motivated
08. Because my work is my life, and I don't want to fail.	4.25	1.29	5.5	2	Motivated
09. Because my reputation depends on it.	4.66	1.72	5	2	Moderately motivated
Extrinsic motivation dimension					
10. Because this job provides me with a certain standard of living.	4.97	1.51	5	2	Moderately motivated
11. Because it allows me to earn a lot of money.	3.69	1.52	4	1.5	Unmotivated or poorly motivated
12. I do this job for the pay.	3.88	1.89	4	2	Unmotivated or poorly motivated
Job satisfaction					
01. In general, I'm satisfied with my job.	4.07	0.92	4	1	Agreement
02. I think many other jobs are more interesting than mine.	3.62	1.08	4	1	Indifference
03. My current job meets the expectations I had before I started.	3.94	1.1	4	1	Indifference
04. I would like to have another job because I am not satisfied.	2.6	1.27	2	2	Disagreement
05. My current job is enjoyable.	3.93	0.92	4	0.5	Indifference
06. I think my current job is interesting and fascinating.	3.65	1	4	1	Indifference

*Me=Mean; Md=Median; σ =standard deviation; IQR=interquartile range.

Source: The authors (2023).

Table 2 shows the variables that showed statistically significant differences between the groups studied in terms of items relating to motivation and job satisfaction. With the education variable, there was a statistically significant difference between the groups studied in one item of each scale applied. In item 03 'the moments of pleasure my work

gives me' ($p = 0.031$) of the MAWS, participants with less than 12 years of schooling had higher mean levels of motivation. On item 03 'my current job meets the expectations I had before I started' ($p = 0.039$) of the Job Satisfaction Scale, participants with more than 12 years of schooling had higher satisfaction averages.

The gender variable showed a statistically significant difference between the groups studied for one item on the Job Satisfaction Scale. In item 03 'my current job meets the expectations I had before I started' ($p = 0.014$), females had higher satisfaction averages.

Table 2 - Sociodemographic variables compared to variables related to motivation and job satisfaction among study participants. Três Lagoas-MS, Brazil, 2023

Variables	Motivation at work For the moments of pleasure, my work gives me					Satisfaction at work My current job meets the expectations I had before I started				
	Me	σ	p value	Md	IQR	Me	σ	p value	Md	IQR
Gender										
Female	5	1.6	0.432	5	2	4.09	1.03	0.014	4	1
Male	4.54	1.85		5	3	3.31	1.18		3	1
Education										
< 12 years of study	5.35	1.47	0.031	5.5	3	3.68	1.17	0.039	4	1
> 12 years of study	4.47	1.71		5	3	4.21	0.96		4	1

*Me=Mean; Md=Median; σ =standard deviation; IQR=interquartile range.

Source: The authors (2023).

DISCUSSION

Among the participants, characteristics were identified that could interfere with the cleaning and disinfection of surfaces at SARS-Unit. Among these, the fragility of training in the area during the COVID-19 pandemic and the difficulty in accessing the existing protocols at the institution stand out, even with the changes that occurred in the surface cleaning and disinfection process during this period.

The health field is one of the most sensitive to labor and social implications, with repercussions on the safety and health of workers in the area. Concerning the specific activities of cleaning and disinfecting surfaces, greater attention is needed to manage the existing risks. Professionals involved in this process are often susceptible to occupational accidents. In addition, surface cleaning and disinfection contribute to a sense of well-being, safety, and comfort in health services, and contribute to the control of healthcare-related infections¹¹.

Educational processes on surface cleaning and disinfection for healthcare workers are urgently needed, using a variety of strategies (videos, demonstrations, and role-plays) and addressing related topics (hand hygiene, isolation precautions, use of personal protective equipment, cleaning protocols, and strategies for overcoming barriers found in the workplace). Such actions result in learning, behavioral change, an increase in the

frequency of cleaning and disinfecting surfaces, and, consequently, reduce hospital-acquired infections¹².

Levels of motivation and job satisfaction among healthcare workers have deteriorated sharply during the Covid-19 pandemic. Various individual, environmental, and work-related factors have contributed to this change. Health professionals who were single, aged 30 or under, had less professional experience and lower job satisfaction had lower levels of motivation. The longer health professionals have been involved in COVID-19-related tasks, the lower their financial motivation to work, which suggests the need to strengthen other motivational sources besides salary increases, such as promoting recognition for the work done¹³.

The patient's recovery, the possibility of caring for and saving lives, and financial stability are intervening factors in motivation and job satisfaction among professionals responsible for cleaning and disinfecting surfaces during the COVID-19 pandemic. In this population, work overload; the lack of material and physical resources for adequate care, professional recognition, training, and qualification; and the delay in vaccination for COVID-19 stood out among the intervening factors for job dissatisfaction and demotivation¹⁴.

As for motivation at work, there was a higher level in variables belonging to the intrinsic, identified, and introjected dimensions, as well as a lower level in the extrinsic dimension. There was a higher average of intrinsic and identified motivation among health workers at a charity hospital, suggesting that they identify with their work based on personal values and interests. Demotivation at work was linked to extrinsic aspects such as remuneration, time off, and leave without financial loss¹⁵.

Social and moral responsibility, professional obligations, the feeling of gratification, and the relationship with patients were protective factors for the work motivation of nurses and doctors during the COVID-19 pandemic, even though their lives were at risk. Higher levels of discomfort, unease, and demotivation at work were identified in those workers who did not choose their profession based on identification and desire¹⁶.

The factors contributing to the motivation of health workers during the COVID-19 pandemic consisted of collaboration between health workers, the availability of safe information, family support, and support from hospitals. Concerning family support, it has become important to provide these workers with regular communication and contact with family members to deal with the pandemic¹⁷.

Among outsourced cleaning and sanitizing workers at federal educational institutions during the COVID-19 pandemic, motivation and job satisfaction were expressed when they felt treated as equals by nursing professionals. In this scenario, motivation and job satisfaction were expressed based on the experience of inclusion and the feeling of belonging to the group⁶.

Concerning job satisfaction, most of the participants were satisfied with their work and did not want to change jobs. Among nursing workers who worked in a teaching hospital during the COVID-19 pandemic, there was ambivalence regarding job satisfaction. These workers had higher levels of satisfaction with supervision and co-workers, and lower levels with pay, benefits, promotion, and operating conditions. Nurses working in management had higher levels of job satisfaction when compared to care nurses and nursing technicians¹⁸.

Remuneration, the institution's rules, the level of autonomy, and the duties inherent to the profession are variables often related to the dissatisfaction of nurses working in hospitals and may even lead them to abandon their professional careers¹⁹. Other variables

that can interfere with the satisfaction of these workers are gender, age, marital status, schooling, and living conditions, as well as external factors such as the success achieved at work, career development, and the characteristics of the work performed²⁰.

The variables marital status, education, and place of work were related to job satisfaction among health professionals during the COVID-19 pandemic. Married workers with higher education who worked in emergency departments and intensive care units had lower levels of job satisfaction when compared to single workers with lower education who worked in other departments²¹.

Job satisfaction is an important aspect of the work environment and can affect the care provided. Nurses working in high-complexity health units perceive satisfaction to be linked to factors present in daily work (autonomy, remuneration, workload, and teamwork). Health institutions must recognize and value their workers, offering physical, material, and human resources to contribute to holistic and comprehensive health care²².

The study has important limitations to consider. The cross-sectional design and non-probabilistic sampling do not allow cause-and-effect relationships to be established between the variables investigated. In addition, the investigation was conducted in a single SARS-Unit, making it impossible to generalize the results.

The study was carried out during the COVID-19 pandemic, a period in which many health workers were overloaded with activities or on sick leave, which made it impossible for them to participate. Another important limitation is the scarcity of specific scientific publications on the motivation and satisfaction of healthcare workers involved in cleaning and disinfecting surfaces, especially professionals with lower levels of education, which made it difficult to compare with the findings of this study.

CONCLUSION

There was a higher level of motivation at work in the intrinsic, identified, and introjected variables, and a lower level in the extrinsic variable of remuneration received. There was agreement among the participants regarding job satisfaction and not wanting another job.

The research expands knowledge about elements characteristic of everyday organizational life in health services, especially in the context of the Covid-19 pandemic, and makes it possible to plan actions that have a positive impact on the working conditions of professionals involved in the process of cleaning and disinfecting surfaces.

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