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Review Article

A Review of the Procrastination Phenomenon among Hospital Employees in Iran

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Abstract

Introduction: Procrastination is one of the plagues of the organization, which has adverse effects and consequences for the organization and individuals. Procrastination has different aspects that require a thorough examination. Paying attention to this issue is very important for the organization. In healthcare organizations, including hospitals, Procrastination can have irreparable consequences. Therefore, this research aims to review the phenomenon of Procrastination among hospital employees.

Methods: This study was done in a rapid review form. Initially, 3,790 articles were extracted by searching databases. To conduct this study, we examined 17 articles about Procrastination and social avoidance in the hospital by searching the scientific databases PubMed, Science Direct, ProQuest, Scopus, Web of Science, Mag Iran, and Civilica. The keywords used include English keywords such as Procrastination, social loafing, hospital, etc.; the Persian keywords were Procrastination, social avoidance, hospital, etc.

Results: The findings of this study showed that many factors, such as age, gender, marital status, service history, job stress, job burnout, perfectionism, leader-team, and team-member relationships, play a role in employee procrastination. The amount of Procrastination is different among the employees of different departments. Procrastination has adverse personal and organizational effects. In order to prevent the Procrastination of employees in the hospital, management should take appropriate measures and make appropriate decisions.

Conclusions: Procrastination lowers satisfaction, efficiency, performance, and productivity. Managers, particularly in hospitals, should implement strategies to prevent it.

Keywords: Social loafing, Procrastination, Hospital employees

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Introduction

Achieving universal health coverage and access to quality, safe, and effective essential healthcare, medicines, and vaccines is emphasized in Goal 3, Paragraph 8 of the United Nations Sustainable Development Goals. A qualified and motivated workforce is one of the most important factors in responding to individuals' quality of care and treatment needs (1). The health workforce is the most important resource for health systems to achieve universal health coverage. The health workforce includes all those involved in providing essential health services to individuals, including doctors, nurses, pharmacists, physiotherapists, etc., in the treatment sector, and managers, economists, accountants, staff, etc., in the administrative and clerical sectors (2). The World Health Organization (WHO) has outlined two approaches to ensure that a competent and sufficient health workforce is available to deliver effective performance: allocating human resources to issues considered public health priorities and distributing, retaining, and evaluating the performance of the health workforce (3). Today, healthcare organizations face significant challenges, including adequate access to healthcare, which cannot be achieved without their staff's participation and excellent performance (4).

In various organizations, human resources

are considered an important asset that has a significant role in achieving the organization. One of the concerns of senior executives and leaders in organizations is to understand workforce characteristics and apply this important capital to increase the organization's efficiency (5).

The issue of Procrastination is one of the topics that contributes to employees' physical and mental health and efficiency (6). From an organizational perspective, Procrastination impedes the development and deterrence of human resource innovation and productivity (7). Nomination in the organization can have undesirable and irreparable consequences (8).

Today, Procrastination has emerged as a habit prevalent in various societies. This habit is associated with Procrastination in tasks and responsibilities, leading to unpleasant results (5). The word procrastination is equivalent to two parts of Pro (forward) and Crastinus (Tomorrow) (9). In the Dictionary of the Collins Cobuild, Procrastination is the person who does something slowly and intends to leave it under the pretext of doing the job (10). procrastination or postponement is very common and can be considered one of the inherent human tendencies (11).

One of the most important assets of any organization is its workforce (12). The workforce is important in healthcare organizations due to its direct relationship with human health (13). In healthcare services providers, there is the highest amount of teamwork in the nurse group compared to other healthcare providers (14). Nurses spend most of the day with the patient. For this reason, proper teamwork and avoiding social evasion are essential to deliver the quality of service (15).

Social avoidance is a common problem in various organizational working groups (16). Social avoidance is a social disease in the organization that reduces efficiency and negatively affects individuals, social institutions, and even society (17). People's desire for less effort and social avoidance when working in a group is greater than when working individually (18). The lack of individual accountability is the lack of motivation due to the standard reward, the lack of coordination, and justice in the efforts of the factors of social avoidance in the organization (19).

Employee procrastination is important in the healthcare system and hospitals because it directly relates to providing quality care and services to patients. Statistics show that administrative staff in healthcare centers exhibit high levels of Procrastination and Procrastination, which can lead to reduced satisfaction, physical and mental injuries, emotional distress, increased pain and suffering, and possible death in patients (20-22). This factor also leads to burnout in hospital staff, jeopardizing physical and mental health, increasing stress, and ultimately providing poor quality services to patients (23).

Many factors are involved in causing people to Procrastinate in organizations. From the point of view of psychologists, these factors are divided into two categories: internal and external. Internal factors are related to the person's self-esteem, including self-confidence, excessive expectation of self, excessive perfectionism, depression, fear of failure, and anxiety (16). External factors include environmental and organizational factors such as stubbornness and lack of sense of responsibility, dissatisfaction with the existing situation, and trying to satisfy all people (24, 25).

In organizations where employees Procrastinate, are Disappointed, leave work, lack motivation and success, and have mental and physical problems, leave off work, the characteristics of the organization's staff and lack of change, decreased performance and efficiency of the organization characteristics (6). From Bels and Hank's point of view, Procrastination appears in different ways, including behaviors such as Procrastination in performing tasks, wasting time, negative views, delaying clients, and reducing performance and efficiency (26). Avoiding the workplace can hurt employees and organizations (7).

Some wrongly equate Procrastination with laziness, while these two issues are different and separate. In laziness, a person does not want to do work. However, in Procrastination, a person often keeps himself busy doing useless things to avoid doing tasks that have priority and must be done at the appointed time (20). Procrastination at the beginning of a task may be due to wanting to do the work entirely and flawlessly. This makes the work more difficult and unpleasant. Due to facing perfectionist frameworks, the procrastinator avoids doing tasks from his point of view in a hurry and postpones them to do them more carefully and ideally (21). Previous studies show that Procrastination has various dimensions that affect the results and

performance of the organization. Procrastination is a vast topic that requires examining all individual and organizational aspects. Therefore, this research aims to review the phenomenon of Procrastination among hospital employees.

Methods

The current research was conducted in 2025 to review the Procrastination phenomenon in hospital employees. This study was done in a rapid review form. After determining the research question, articles related to the research objective and the study question were extracted. For this purpose, studies with at least an English or Persian abstract were examined. In order to include the articles in the study, the time 2018-2025 was considered in the databases because the authors considered that factors like COVID-19 may affect Procrastination. To extract related articles, the researcher searched the scientific databases of PubMed, Science Direct, ProQuest, Scopus, Web of Science, Magiran, and Civilica. Different keywords used include English keywords such as Procrastination, Social loafing, Hospital, etc., listed in Table 1. Also, the information about how to search the databases

is given in Table 2. The study was screened by two people simultaneously. A third person was consulted in case of disagreement on acceptance or rejection.

After searching for keywords, about 3790 articles were extracted, among which 2556 were discarded due to lack of relevance to the subject. One thousand two hundred seventeen articles were excluded due to duplication, and 17 were selected. One thousand two hundred seventeen articles were excluded due to duplication, and 17 were selected. All 17 selected articles were conducted in Iran (Figure 1).

The article selection process was based on the following protocol:
1) Examining the thematic connection of the titles of the found articles with the objectives of the study
2) Examining the relevance of the abstracts of the articles with the objectives of the study
3) Examining the full text of the article and its relationship with the objectives of the study

After performing the above steps, the articles that covered the following criteria were included in the study;

Table 1: Keywords used and how to combine them

Concept Keyword type and combination method	First concept	Second concept	Third concept
English	Procrastinate*	Hospital	Staff
	Delay		Worker
	Put off		Employee
	Punctuation		Personnel
	Prorogation		
	Deferment		
	Postponement		
	Supersedure		
	More		
	"social loafing"		
How to combine keywords in English databases	#1: Procrastinate* OR Delay OR "put off" OR Cunctation OR Prorogat* OR defer* OR postpone* OR supersedure OR Mora OR "social loafing"	#2: Hospital	#3: Staff OR Worker OR Employee OR Personnel
	#1 AND #2 AND #3: (Procrastination* OR Delay OR "put off" OR punctuation OR prorogation* OR defer* OR postpone* OR supersedure OR more OR "social loafing") AND Hospital AND (Staff OR worker OR employee OR personnel)		
Persian	"Procrastination"	Hospital	-
	"delay"		
	"Postponement"		
	"negligence"		
	"social loafing"		
	"social avoidance"		
How to combine keywords in Persian databases	At least one of the following: "delaying," "negligence," "procrastination," "postponement," "social loafing," or "social avoidance."	Hospital	-
	Include at least one of the following: "delaying," "negligence," "procrastination," "postponement," "social loafing," or "social avoidance." It must also contain the word "hospital."		

Table 2: Search strategies used in different databases

No	Database type	Databases	Search Strategy	Year	Searched field	Language	Other restrictions related to the base	Number of articles
1	English	PubMed	(Procrastinate* OR Delay OR "Put off" OR Cunctation OR Prorogat* OR Defer* OR Postpone* OR Supersedure OR Mora OR "social loafing") AND Hospital AND (Staff OR Worker OR Employee OR Personnel)	2018-2025	Title and Abstract	English	-	474
2		Science Direct	(Procrastination OR Delay OR "put off" OR Defer OR Postpone OR "social loafing") AND Hospital AND Staff	2018-2025	Title, Abstract and Keyword	English	Research papers, case studies, guidelines, and others	179
3		ProQuest	(Procrastinate* OR Delay OR "put off" OR Cunctation OR Prorogat* OR Defer* OR Postpone* OR Supersedure OR Mora OR "social loafing") AND Hospital AND (Staff OR Worker OR Employee OR Personnel)	2018-2025	Title, Abstract and Keyword	English	The article, Evidence, Case Study, Report, Unspecified	708
4		Scopus	(Procrastinate* OR Delay OR "put off" OR Cunctation OR Prorogat* OR Defer* OR Postpone* OR Supersedure OR Mora OR "social loafing") AND Hospital AND (Staff OR Worker OR Employee OR Personnel)	2018-2025	Title, Abstract and Keyword	English	Unpublished articles, removing articles other than the hospital	1312
5		Web of Science	(Procrastinate* OR Delay OR "put off" OR Cunctation OR Prorogat* OR Defer* OR Postpone* OR Supersedure OR Mora OR "social loafing") AND Hospital AND (Staff OR Worker OR Employee OR Personnel)	2018-2025	Title, Abstract and Keyword	English	Research and conference articles, removing articles other than the hospital	1100
6	Persian	Magiran	Include at least one of the following: "delaying," "negligence," "procrastination," "postponement," "social loafing," or "social avoidance." It must also contain the word "hospital."	2018-2025	Title, Abstract and Keyword	All languages	Journals	13
7		Civilian	Hospital Negligence	2018-2025	Keyword	-	-	1
			Hospital Procrastination	2018-2025	Keyword	-	-	2
			Hospital Social loafing	2018-2025	Keyword	-	-	1
Total								3790
Duplicate number								1217
The number of articles remaining after removing duplicates								2556

After reading the articles, the materials related to the subject and purpose of the study were selected, and their excerpts were noted.

Results

In this study, the number of 17 articles that were Iranian were examined (Table 3). Studies in hospitals and medical centers have been conducted in the field in the form of questionnaires and their analysis by statistical tests. Most of these studies have been conducted on nurses. The volume of samples varies from 13-290 samples in studies (Table 4).

Determining the amount of Procrastination in Hospital Employees Based on the Studies

According to the results of the reviewed studies, the Procrastination rate varies from 1.5-70.5% among employees (Table 5).

Determining the Factors Affecting Procrastination in Hospital Employees

Based on the results, factors affecting Procrastination include age, gender, education, employment status, and work history. In older people, men with higher education, official employees, and more work history,
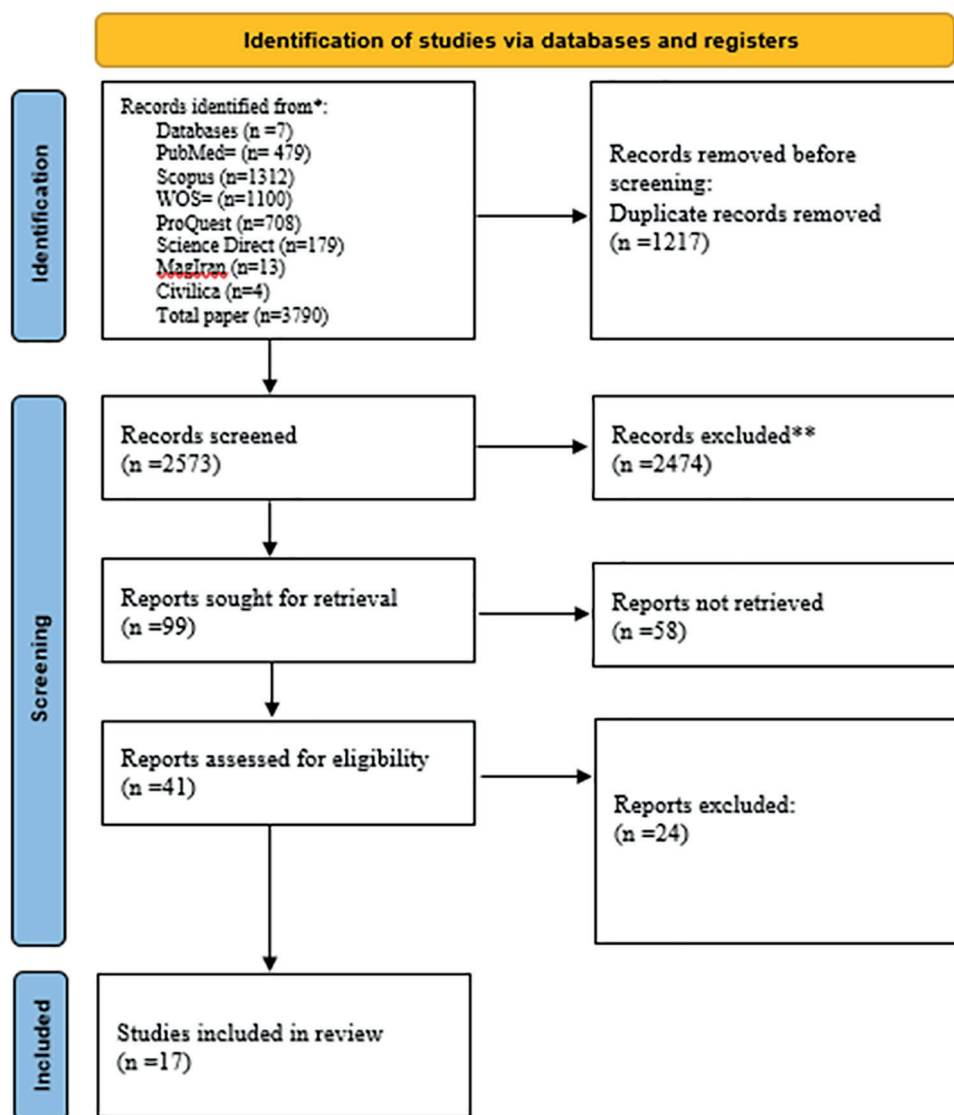
Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram for the systematic review

Procrastination is less common. Job stress, fatigue, and psychological incompatibility with the profession are other factors of Procrastination (22). A significant positive relationship exists between nurses' Procrastination and their job stress. Individual factors of nurses have the most significant impact on their Procrastination (23).

In another study, it was shown that job burnout, reduction of personal success, and emotional exhaustion significantly positively affect Procrastination. The procrastination rate in men is higher than in women (27). There is a positive relationship between job burnout and Procrastination (28). There is a significant negative relationship between Procrastination and job resilience and between Procrastination and job satisfaction. There is a negative relationship between the various dimensions of Procrastination, including mental anxiety, inefficiency, and job aversion, with the dimensions of job satisfaction, including pay, promotion, colleagues, supervisors, and the work of different units (29). A negative relationship exists between nurses' selective attention and their Procrastination, and a positive relationship exists between nurses' motivation and Procrastination (30). There is a significant positive relationship between Procrastination and perfectionism and a significant negative relationship between Procrastination and self-efficacy (31).

Exchange relationships, including leader-member and team-member exchange, affect social Procrastination. If the organization's people feel they have benefited less economically and materially, they will be more Procrastination. Injustice in organizations reduces the participation of employees in carrying out the organization's activities, reducing their efforts in doing group work and procrastinating (32).

Table 3: Studies conducted on employee procrastination in the hospital

No	First Authors	Year	Titles	Population	Place	Results
1	Babaie M (22)	2022	Assessment of Procrastination in providing nursing care among Iranian nursing staff	125 nurses in NICU, PICU, ICU, and SICU	Iran	The highest amount of Procrastination was shown in "task avoidance." According to this study, Procrastination is significantly related to age, work history, marital status, nurses with permanent shifts, low education, and female gender.
2	Basiri-Moghadam M (33)	2019	The Relationship between Procrastination of Nurses and Patient Safety in Allameh Bohlol Gonabadi Hospital	201 Allameh Bahloul Gonabadi Hospital nurses	Iran	There is a significant relationship between nurses' Procrastination and patient safety, so as nurses' Procrastination increases, patient safety decreases.
3	Rahimnia F (32)	2020	An Investigation of Effects Exchange Relationships on Social Loafing by Emphasis on the Mediating Role of Perceived Organizational Justice	265 medical staff of Ahvaz general hospitals	Iran	Exchange relationships (leader-member and team-member relationships) significantly affect social Procrastination; also, the less economically and materially the people involved in exchange relationships feel benefited, the more they will engage in Procrastination than other members.
4	Sharifi A (34)	2019	Job Demands-Resources and Burnout in Nurses: The Moderating Role of Procrastination	152 people (65 men, 74 women, and 13 unknown) nurses working in seven hospitals in Mashhad	Iran	In the relationship between inefficiency from the dimensions of job burnout, skill discretion from the dimensions of job resources plays a moderating role. These findings showed that the interaction of Procrastination and skill discretion positively correlates with inefficiency.
5	Basiri-Moghadam M (37)	2019	Attributes, causes, and outcomes of health-related Procrastination in nurses: A qualitative content analysis	13 nurses (5 men and 8 women) from university hospitals affiliated with Iran University of Medical Sciences and Gonabad University of Medical Sciences	Iran	Characteristics of Procrastination include unreasonable Delay in performing health tasks and a gap between intention and action. Factors of Procrastination included risk-taking, social behavior, attention to the present and comfort compared to age preferences, self-satisfaction, avoidance behaviors, internal tendencies, nature of the problem and beliefs, and nursing occupation. The consequences included physical, psychological, and social problems.
6	ChinAveh M (35)	2017	Comparison of Anxiety, Depression, and Procrastination in Nurses of Mental and General Hospitals	126 nurses (63 from psychiatric hospital and 63 from general hospital	Iran	There is no significant difference in the level of depression and anxiety between general hospital nurses and psychiatric hospital nurses. However, the level of Procrastination was significantly higher among general hospital nurses than psychiatric hospital nurses.
7	Rezaei B (38)	2017	The Relationship Between Nurse Managers' Leadership Styles and Procrastination in Nursing Staff in Isfahan Social Welfare Hospitals	290 employees of Isfahan Social Welfare Hospitals	Iran	In the task-oriented leadership style, the procrastination rate of employees was low. The relationship-oriented leadership style has a weak significant inverse relationship with the level of Procrastination and inefficiency, and the task-oriented leadership style has a weak significant inverse relationship with the level of aversion to the duties of employees.
8	Yarmoham-madian MH (8)	2016	Assessing the prevalence of organizational Procrastination and the associated factors among nursing and midwifery staff.	290 employees of three hospitals affiliated to Isfahan Social Welfare hospitals	Iran	More than 70% of employees had low Procrastination, and 1.5% had high Procrastination. There was a significant relationship between work procrastination and the hospital. Employee procrastination was higher in the emergency department, surgery, midwife occupational category, official, and married employees. There was no significant relationship between occupational and personal factors and Procrastination.

No	First Authors	Year	Titles	Population	Place	Results
9	Sabokro M (27)	2017	Job burnout in nurses and its impact on their negligence	110 nurses working in Yazd city	Iran	There is a significant relationship between job burnout and Procrastination. The dimension of depersonalization does not affect Procrastination; emotional exhaustion and reduced success have the most significant impact. According to the results, male nurses are more procrastinate than female nurses.
10	Azizi K (39)	2017	Comparison of resiliency, Procrastination, stress, and burnout among nurses in psychiatric and non-psychiatric wards	101 people (48 people in psychiatric departments and 53 people in non-psychiatric departments) of nurses in Sanandaj city hospitals	Iran	There is a significant positive relationship between nurses in psychiatric and non-psychiatric departments in terms of job burnout and job stress. However, there is no difference between job resilience and Procrastination. The resilience variable has a direct relationship with each of the variables of job stress, Procrastination, and job burnout.
11	Shahbazian Khonoig A (28)	2017	The role of job motivation and job procrastination in predicting job burnout of Ahar Shahr Hospital employees	126 people (79 women and 46 men) from the staff of Ahar city hospital	Iran	There is a significant negative relationship between job motivation and job burnout and a positive significant relationship between job burnout and job procrastination.
12	Farzi N (23)	2015	Relationship between nurses' job stress and Procrastination: a case study	144 nurses from different departments of Shohada Kargar Hospital in Yazd	Iran	Job stress has a positive and significant relationship with nurses' Procrastination and with each of the individual, organizational, and environmental factors of Procrastination. Among the factors of Procrastination, the most related are organizational and individual factors.
13	Etebarian A (29)	2016	Procrastination relationship: Resilience and job satisfaction among the staff of Dr. Shariati Hospital in Isfahan	280 non-medical staff members of Dr. Shariati Hospital in Isfahan	Iran	There is an inverse and significant relationship between organizational Procrastination and personnel resilience. There is a significant and negative relationship between organizational Procrastination and job satisfaction. Among the different dimensions of Procrastination, the dimension of inefficiency can predict resilience and job satisfaction.
14	Rahimi L (36)	2014	The Efficacy of mindfulness-based Stress Reduction on Procrastination Reduction Nurses City of Marivan	30 nurses from Fajr and BuAli hospitals in Marivan city	Iran	According to the findings of this research, mindfulness training based on stress reduction effectively reduces nurses' Procrastination. There is a negative relationship between mindfulness and Procrastination.
15	Etemadi M (15)	2015	Social loafing and organizational justice among nurses: A case study in a teaching hospital	245 nurses at Tohid Hospital in Sanandaj	Iran	According to this research, all organizational justice components have an inverse relationship with social Procrastination. Social Procrastination has a significant relationship with gender and service history.
16	Heidari F (30)	2013	Association of selective attention with procrastination and arousal among intensive care units (ICUs) and coronary care units (CCUs) nursing staff	162 nurses of ICU and CCU in Tehran Heart Center	Iran	According to the findings of this research, there is a significant inverse relationship between Procrastination and the selective attention of employees, and there is also a significant relationship between Procrastination and the level of arousal of nurses. Increasing the selective attention of nurses leads to a decrease in Procrastination and an increase in self-satisfaction.
17	Fatehi Y (31)	2012	Relationship between Procrastination with Perfectionism and Self-efficacy in Public Hospitals Staff of Farashband City	150 people (90 men and 60 women) from the staff of Farashband City Public Hospital	Iran	According to the findings of this research, there is a significant positive relationship between perfectionism and Procrastination and a significant negative relationship between self-efficacy and Procrastination, and there is also a significant difference in the amount of Procrastination between male and female employees.

Table 4: Characteristics of selected studies

Variables	Types	Number	Percent
Type of Study	Cross-sectional	4	23.53
	Analytical	4	23.53
	Descriptive	7	41.18
	Qualitative	1	5.88
	Quasi-Experimental	1	5.88
The tool used	Questionnaire	16	94
	Interview	1	6
The type of personnel examined	Nurse	13	76.5
	Staff etc.	4	23.5

Table 5: The amount of Procrastination among hospital employees

No	Titles	Procrastination rates (%)
1	Assessment of Procrastination in providing nursing care among Iranian nursing staff	37
2	The Relationship between Procrastination of Nurses and Patient Safety in Allameh Bohlol Gonabadi Hospital	35.18
3	The Relationship Between Nurse Managers' Leadership Styles and Procrastination in Nursing Staff in Isfahan Social Welfare Hospitals	Very low: 10.9 Low: 70.5 Average: 17.1 High: 1.5
4	Assessing the prevalence of organizational Procrastination and the associated factors among nursing and midwifery staff	Very low: 10.9 percent Low: 70.5% Average: 17.1 percent High: 1.5 percent
5	Relationship between nurses' job stress and Procrastination: a case study	46
6	Association of selective attention with procrastination and arousal among intensive care units (ICUs) and coronary care units (CCUs) nursing staff	28.09-37.96
7	Relationship between Procrastination with Perfectionism and self-efficacy in public hospitals staff of Farashband City	In men: 24.92 In women: 20.83

Various components of organizational justice, including procedural, interactive, and systemic justice, have an inverse relationship with Procrastination, and distributive justice has a significant relationship with Procrastination. There is a significant relationship between social Procrastination and service history (15).

Determining the Effects of Avoidance on Hospital Employees

Procrastination's consequences are reduced performance, a negative attitude toward the organization, reduced productivity, reduced employee motivation, and dissatisfaction (22). One of the effects of Procrastination in hospitals is reducing patient safety (33). In therapeutic jobs requiring group work, social Procrastination can have negative consequences, including weak individual, group, and organizational performance (32). Inefficiency and weakness in coping strategies against stress are some of the effects of Procrastination (34).

Procrastination also affects how tasks are performed. If the frequency of procrastination increases, it will have critical individual and organizational consequences. Procrastination of nurses in psychiatric centers can lead to patient suicide and serious injury to him, the nurse, or another patient (35).

Social Procrastination reduces individual interactions, group satisfaction and trust, and group and individual performance, subsequently reducing the organization's effectiveness and performance (15).

Determining Strategies to Prevent Procrastination in Hospital Employees

Among the solutions to reduce Procrastination, we can mention adopting adequate measures and appropriate management strategies, increasing employees' motivation, self-esteem, and self-confidence, and improving the professional environment (22). Allocation of resources and fair distribution of rewards in the organization increase trust in superiors and commitment of employees and, as a result, reduce Procrastination

among them. Improving vertical relations (leader-team) and horizontal relations (team-member) and distributive justice are effective in reducing social Procrastination (32).

To prevent Procrastination, the supervisors of hospitals should provide conditions and improve the level of knowledge of their employees with necessary periodical training regarding Procrastination, the factors affecting it, etc. Also, it is suggested that educational workshops, counseling, and group meetings be held. A suitable working environment in terms of green space facilities, light, sound, technology, and proper ventilation is also effective in reducing Procrastination (27). To control the individual factors affecting Procrastination, it is suggested that training be designed and implemented to determine the level of nurses' motivation, full use of abilities, and willingness to perform tasks before hiring nurses. To control the organizational factors affecting Procrastination, the performance evaluation and monitoring system should be designed in harmony with the nurses' duties (23). Training based on mindfulness in nurses reduces Procrastination by reducing their stress (36). One of the ways to reduce social Procrastination is to highlight the importance of work. In such a way, the nurse's role at the patient's bedside is considered important and prominent (15).

Holding meetings and training courses by managers; Importance to experience, background, personality, and individual factors of employees; Accuracy in making decisions and management practices; creating justice in rewards and financial incentives; Efforts to create mental and emotional peace in employees; Identifying personnel involved in Procrastination and holding counseling sessions with them; Evaluation of different hospital units in specific schedules; And using the experiences of other centers is one of the ways to reduce Procrastination in organizations (29).

Discussion

Considering the important role of Procrastination in the organization and its effects and results on reducing the performance and efficiency of the organization, it is essential to pay attention to this issue and prioritize the investigation of factors, effects, and solutions to prevent it. Based on the studies reviewed in this research, various individual, organizational, and environmental factors affect employee procrastination. Social Procrastination among employees can have irreparable consequences and effects on the organization.

Based on the findings, Procrastination is different in different types of hospitals, employees, and hospital departments. Most of the studies on Procrastination in the hospital were conducted by a group of nurses. Nurses are more involved in Procrastination than other hospital employees due to their greater communication with patients and the performance of patient care duties. The nurses of the emergency, surgery, and midwifery departments showed the highest amount of Procrastination compared to the rest of the hospital staff (8). The amount of Procrastination varies according to the gender of the employees. In one study, it was shown that the rate of Procrastination was higher in men (27), but in another study, it was shown that the rate of Procrastination was higher in women (22). The discrepancy between these two studies regarding the amount of Procrastination in men and women may be due to the difference in the conditions of the study or the difference in the parts of the hospital where the study was conducted.

The results of studies conducted in the field of job burnout and Procrastination show that job burnout is one of the important factors of Procrastination. Increasing job satisfaction among the organization's people reduces Procrastination (29). High workload, individual factors, job stress, psychological incompatibility, and fatigue are other factors related to procrastination (22, 23, 40). Employees' perfectionism is one-factor causing Procrastination (31), so they may refuse to perform their duties to do the work better at another time. Procrastination is also related to dissatisfaction with salary, comparing oneself with other employees, and dissatisfaction with the organization.

Studies show that Procrastination leads to negative consequences, including weak individual, group, and organizational performance (32). These consequences can be irreversible for the organization. The individual consequences are related to the procrastinator himself, and the organizational consequences are related to the organization. Among the individual consequences, we can mention the decrease in individual satisfaction, and the organizational consequences of Procrastination include a decrease

in the organization's performance and an increase in dissatisfaction with it. It is better to conduct studies on the social and economic consequences of Procrastination in the organization. In healthcare organizations such as hospitals, the Procrastination of employees, especially nurses, can negatively affect patients' health.

According to the results of studies, managers can increase the motivation and self-confidence of employees and reduce Procrastination in the organization by adopting appropriate management decisions and strategies (22). According to other studies, it is possible to prevent Procrastination by reducing long shifts in employees, creating spaces with less stress, and giving them rest after performing frequent tasks. Fair allocation of rewards, periodic assessment of employees' mental health, and workshops and training sessions by the organization's supervisors effectively reduce Procrastination (27, 32, 35). Employee burnout can be reduced by reducing the tension and pressure imposed on people and creating positive attitudes in them (27).

Conclusion
The results of these studies show that the amount of Procrastination in the studies varies according to different units in the hospital, types of hospitals, and different conditions of the employees. Factors such as age, gender, marital status, service history, education, leader-member and team-member exchange relationships, hospital location, job burnout, job stress, job satisfaction, job resilience, and perfectionism are effective on the level of Procrastination of hospital employees. Procrastination leads to negative personal and organizational consequences, including reducing the organization's efficiency and increasing dissatisfaction with the organization's performance. Examining solutions to prevent Procrastination in the organization requires effort and appropriate management decisions. Based on the findings of this study, the following suggestions are made to control Procrastination among hospital employees: Prioritizing and planning to check the amount of Procrastination in different departments of the hospital and making appropriate decisions to reduce it; Explaining to the hospital staff about the effects of Procrastination in the organization and its impact on people and the performance of the organization; Identifying and classifying factors

affecting the Procrastination of hospital staff and trying to reduce these factors; and providing general and detailed solutions according to each of the factors of Procrastination to reduce and prevent the occurrence of Procrastination in the organization.

Limitations
Lack of access to the whole file of some studies was a research limitation.

Data availability statement
The study is based on extracting data from published articles; all data are included in the report.

Ethics approval and consent to participate
This is not applicable as the study is based on extracting data from published articles.

Conflict of Interest
There are no conflicts of interest.

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