

Cyber loafing, Procrastination and job Conscientiousness among Head Nurses at Main Mansoura University Hospital

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Abstract

Background: There is rapid technological advances in health care sector, the internet has become available in all aspects of daily life. It is a double-edged sword with its drawbacks. The behaviours of a nurse wasting organizations time for non-work related activities using internet called cyber loafing. When nurses practicing cyber loafing and procrastination leading to a lack of job conscientiousness. **Aim:** To determine the association between cyber loafing, procrastination and job conscientiousness among head nurses working at Main Mansoura University Hospital. **Research Design:** Descriptive correlational design. **Setting:** The study was conducted at main Mansoura University Hospital. **Subjects:** a sample composed of 135 head nurses working at Main Mansoura University Hospital. **Tools:** Three structured questionnaire were used; cyber loafing scale, procrastination scale and six factor personality questionnaire. **Results:** The studied head nurses had moderate level of both procrastination (88.9%) and job conscientiousness (74.8%). However, they had low level of cyber loafing **Conclusion:** There were significant negative correlations between cyber loafing, procrastination and job conscientiousness. **Recommendations:** It is recommended that nursing managers should develop clear guidelines, work ethic and policies to limit tasks procrastination. Apply reward and punishment strategy can serve to improve self-control and self-regulation behaviour.

Keywords: *Cyber loafing, Head Nurses, job Conscientiousness & Procrastination.*

Introduction

These days, there is a lot of technological development and the use of the internet in all fields, especially in the health sector, which in turn has changed the behaviour of health care providers. Internet has two sides, the positive side such as self-development, searching for information, or the negative side that leads to wasting time and effort. Head nurses can use these technologies for personal purposes during work hours. Despite the increasing use of technology in the work environment, there are some misuses that affect patient safety and nurses' performance level. One of the misuses of the Internet is cyber loafing of staff in organizations. Most of nurses waste their time by cyber loafing. In addition to head nurses procrastinating tasks, which negatively affect the quality and outputs of health care institutions. But the presence of internet and information technology cannot be dispensed health care setting, so optimal use of it must be exercised to achieve positive results (Çinar & Karcioğlu, 2015). Cyber loafing is a problem in health care organizations. Cyber loafing refers to misuse of internet, anti-productivity behaviours of nurses using the internet at work for a personal purpose does not lead to an increase in the level of productivity. There are some examples, such as using the internet in the

workplace to browse personal websites that not related to the field of work as checking and sending personal e-mails, news, entertainment, and online shopping and gaming. It is considered a type of anti-work efficiency behaviour and a form of time wasting activities (Lee & Kathryn, 2017). It is an intentional behaviour that hinders the achievement of goals and contradicts the beliefs and expectations of the health care institution, which negatively affects nurses and patients and the hospital as a whole (Mashal, 2020). There are two types of cyber loafing: insignificant and serious. Surfing the internet, reading news or sports websites, receiving and sending non-work-related emails, and online shopping are all examples of insignificant cyber loafing. On the other hand, following and playing on betting and gambling sites, visiting adult sites, and downloading music or programmes without authorization are all examples of serious cyber loafing. Head nurses who engage in serious cyber loafing are aware of the risk of the situation and their legal duties, but they cannot modify their behaviour (Poland & Turkey, 2021). Negative results of cyber loafing include loss of reputation, damage to privacy, infection by viruses in the organization's system, damage to organisational reliability, major legal liability risks, work delays, disciplinary penalty, and dismissal of nurses.

It is an illegal nurse behaviour that must be monitored and controlled by organizations to decrease the level of procrastination (**Beri & Anand, 2020**).

Procrastination can be defined as the intentional and unjustified postponement of the performance of a particular task or the completion of the work performed by the individual despite the knowledge that this behaviour negatively affects the personal and institutional aspects. When head nurses procrastinate, they frequently postpone responsibilities in favour of focusing on less important, more pleasurable, simpler tasks instead (**Ghaffari, Mohammadi, Arazi, Arzani & Rahimaghaee, 2021**).

Procrastinators frequently experience negative effects as a result of their behaviour. Evidence suggest that individuals experience negative outcomes such as depression, anxiety, and stress. Procrastination behaviour is significantly associated with irrational cognition and fear of failure. Emotion serves as a link between cognition and behaviour in procrastination, and it is undeniably a significant aspect influencing behaviour. Nurses may have self-defeating thoughts or attitudes as well as self-handicapping thoughts or behaviours as self-destruction and counterproductive techniques (**Guo., Yin., Wang., Nie., & Wang, 2019**). Procrastinators, or low conscientious nurses, may tend to perceive their various tasks as more forced, compared to non-procrastinators or high conscientious nurses. Job conscientiousness describes the quality of working hard and being careful. Being more conscientious at work can help you stay organised, complete difficult tasks, and feel more connected to your career and co-workers. Head nurses with high conscientiousness are ambitious, dependable, and intelligent, making them excellent planners and future leaders in the workplace. They typically better prepare for their work needs and view obstacles and problems in accomplishing goals as challenges to be overcome. (**Liu, Qin, Liu, Li & Sun, 2021**). Job conscientiousness is one of the most important personality traits that have proven to have an inverse relationship with procrastination in the field of work (**Zhang, Mu , Liu & Liu, 2021**).

Job conscientiousness is a face-level feature that has six fundamental aspects in its origin: industriousness, virtue, orderliness, responsibility, self-control and traditionalism. Industriousness refers to the fact of working hard energetic and skilful. Virtue is the quality of being morally good and doing what is right and avoiding what is wrong. Orderliness is the propensity to be clean and neat and to keep object in their desired places. The state or fact of having a duty to deal with something or having authority over someone is referred to as responsibility. Self-control is the ability to regulate one's emotions, thoughts, and behaviour. Traditionalism is the belief

in, or practise of adhering to, traditional beliefs and methods of doing things. Therefore, conscientious nurses are well-organised, diligent, hard-working, persistent proactive, dependable, and innovative in their field (**Kummer et al, 2021**).

There are many positive consequences of job conscientiousness, as a nurse with a high level of conscientiousness is more satisfied with performance results, self-motivated , able to make decisions , control over tasks , more involved in work and has a balance between personal and practical requirements, which leads to a reduction in absenteeism rate , work place pressure and the intention to leave work, all of these results are positively related to the quality of work (**Hohnemann, Schweig, Diestel, & Peifer, 2021**).

Significance of the study:

As a result of rapid technological progress and the increasing use of personal communication devices, especially portable ones, that are constantly connected to the internet. This has led to a change in the nature of providing health services to patients and wasting time to meet personal requirements during working hours, as the patient's safety and well-being may be at risk. In addition to the nurses procrastinating important tasks related to patient care, which is one of the most vital reasons for predicting the level and quality of performance. Also, causes and nature of conscientiousness has been the most consistent and universal predictor of job performance. Job conscientiousness is related to goal-directed performance motivation, interpersonal responsibility for shared goals, and organisational commitment. (**Budd, Miller, & Manning, 2020**). So, we need to determine the association between cyber loafing and procrastination on the job conscientiousness of the head nurses at main Mansoura university hospital.

Aim of the study

Determine the association between procrastination, cyber loafing and job conscientiousness of head nurses at Main Mansoura University Hospital.

Research question

Is there an association between cyber loafing, procrastination and job conscientiousness among head nurses at Main Mansoura University Hospital?

Methods

Research design: Descriptive correlational design was utilized in this study.

Research Setting: The study was conducted at Main Mansoura University Hospital, which affiliated to Mansoura University including all in patient departments (general medicine, orthopedic, medicine and dialysis, medical neuro surgery, anesthetic care unit, general surgery obstetric and gynecological departments, orthopedic surgery and ear, nose and throat surgery). This hospital provides a wide

spectrum of health services at delta region with 1800 bed capacity.

Subjects

All available head nurses at Main Mansoura University Hospital and accepted to participate in the study, their total number was (135).

Tools of data collection

Tools of data collection consisted of three tools:

Tool (1): Cyber loafing scale, it consisted of two parts:

Part (1): Personal and job characteristics data:

It covered items as age, gender, marital status, level of education and years of experiences.

Part (2): Cyber loafing scale:

It is adopted from **Van Doorn (2011)**. It aimed to assess the cyber loafing activities & behaviors that contains 24 items classified into two dimensions; cyber loafing activities and cyber loafing behaviors.

First dimension: cyber loafing activities divided into four sub scales namely; social activity, informational activity, leisure activity and virtual emotional activity. Three items for each subscale.

Second dimension: cyber loafing behaviors divided into four sub scales including developmental behavior, recovery behavior, deviant behavior and addiction behavior. Three items for each subscale. Head nurses responses were measured by five point Likert scale ranged from (1) =strongly disagree to (5)= strongly agree.

Scoring system:Based on cut of point 50%, the level of cyber loafing is set as low <50%, moderate 50-75% and high >75%

Tool (2): Procrastination scale:

It is developed by **Tuckman (1991)**. It aimed to assess procrastination tendencies. It consisted of 16 items. Head nurses responses were measured by four point Likert scale ranged from 1= strongly disagree to 4= strongly agree.

Scoring system: Based on cut of point 50%, the level of procrastination is set as low <50%, moderate 50-75% and high >75%

Tool (3): Six factor personality questionnaire:

It was developed by **Jackson (2000)**. It aimed to assess job conscientiousness. It consists of 24 items divided into two main dimensions: Methodicalness and industriousness.

First dimension: Methodicalness included:- Cognitive structure (n=6 items) related to individual ability to think carefully and develop effective plans. Deliberateness (n=6 items) related to the tendency to think maturely based on study and in a systematic and logical way Order (n=6 items) related to systematic, organized, efficient, precise, efficient and tidy person. Second dimension : Industriousness included: endurance (n=6 items) related the ability to start and complete tasks despite feeling bored and distracted. Head nurses responses were measured by a five point

Likert scale ranging from 1= strongly disagree, to 5= strongly agree.

Scoring system: Based on cut of point 50%, the level job conscientiousness is set as low <50%, moderate 50-75% and high >75%

Validity and reliability

The study tools were tested for the face validity by five experts in the field of nursing administration-faculty of nursing-Mansoura University to evaluate the items validity as well as the entire tools as relevant, comprehensive and appropriate. The study tools were tested to assess reliability through the pilot subjects and Cronbach's alpha test was 0.879 for first tool, 0.899 for the second tool and 0.879 for third tool.

Pilot study

A pilot study was administrated on 10% from head nurses at main Mansoura university hospital (14 head nurses) to evaluate the simplicity and applicability of tools and to determine the time required to fill in questions, the pilot study was excluded from the study sample. No modifications were needed.

Field work

The researchers presented themselves to the studied sample, clarified the aim of the study, and the manner to fill the questionnaire, oral approval was taken from studied sample. The questionnaire distributed to the participants during morning and afternoon shifts . Data collection was completed over a three months period from January to March 2022.

Ethical considerations

An ethical approval was obtained from the Research Ethics Committee of Faculty of Nursing, Mansoura University and the dean of the Faculty of Nursing. An official permission to conduct the study was obtained from the responsible administrator of the hospitals. All participants were informed that participation in the study is voluntary and that they have the right to withdraw from the study at any time. All participants were assured about the confidentiality of the collected data and the privacy of the study sample will be assured.

Statistical design

The collected data were organized, tabulated and statistically analyzed using SPSS software (Statistical Package for the Social Sciences, version 22, SPSS Inc. Chicago, IL, USA). Categorical variables were represented as frequency and percentage. Continuous variables were represented as mean, and standard deviation. Independent t-test was used to test the difference between two mean of continuous variables. ANOVA test used to test the difference between more than two mean of continuous variables. Chi-square test was conducted to test the association between two categorical variables. Pearson correlation coefficient test was conducted to test the association between two continuous variables. Statistically significant was considered as (p-value \leq 0.01 & 0.05).

Results

Table (1): Personal and job Characteristics of the Studied Head Nurses (N=135)

Characteristics	N	%
Age years:		
▪ 20-30	43	31.9
▪ 31-40	60	44.4
▪ > 40	32	23.7
Gender		
▪ Male	26	19.3
▪ Female	109	80.7
Marital status		
▪ Single	55	40.7
▪ Married	76	56.3
▪ Widowed	2	1.5
▪ Divorced	2	1.5
Level of education		
▪ Bachelor degree in nursing science	89	65.9
▪ Post graduate degree in nursing science	46	34.1
Experience years:		
▪ < 10	81	60.0
▪ 10-20	26	19.3
▪ > 20	28	20.7

Table (2): Mean scores of Cyber loafing, Procrastination, and Job Conscientiousness as Perceived by the Studied Head Nurses (N=135).

The study variables	No of items	Min - Max	Mean±SD
Cyber loafing	24	24.0-114.0	52.21±16.2
Cyber loafing activities	12	12.0-56.0	25.65±7.53
1. Social activity	3	3.0-15.0	6.39±2.58
2. Informational activity	3	3.0-15.0	7.91±2.61
3. Leisure activity	3	3.0-13.0	4.44±1.74
4. Virtual emotional activity	3	3.0-15.0	6.91±2.29
Cyber loafing behaviors	12	12.0-60.0	26.56±9.53
1. Developmental behavior	3	3.0-15.0	8.53±3.35
2. Recovery behavior	3	3.0-15.0	7.22±3.33
3. Deviant behavior	3	3.0-15.0	4.19±2.27
4. Addiction behavior	3	3.0-15.0	6.61±3.07
Procrastination	16	28.0-51.0	37.32±4.28
Job conscientiousness	24	56.0-101.0	83.9±8.92
1. Cognitive	6	14.0-28.0	20.47±2.8
2. Deliberate	6	12.0-29.0	21.31±3.06
3. Order	6	8.0-30.0	22.96±4.16
4. Endurance	6	6.0-27.0	19.16±3.09

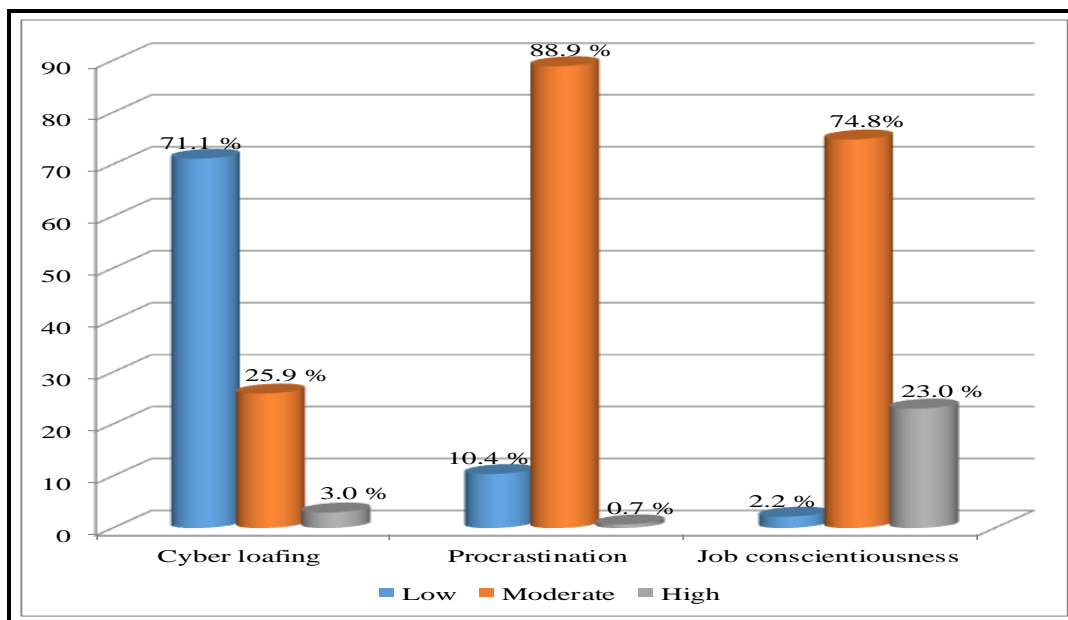


Figure (1): Levels of Cyber loafing, Procrastination and Job Conscientiousness as Perceived by the Studied Head Nurses.

Table (3): Relation between Cyber loafing, Procrastination and Job Conscientiousness and personal, job Characteristics of the Studied Head Nurses (N=135).

Characteristics	Procrastination	Cyber loafing activities	Job Conscientiousness
	Mean ±SD	Mean ±SD	Mean ±SD
Age years:			
▪ 20-30	37.40±4.73	52.95±13.83	83.70±8.59
▪ 31-40	37.95±4.08	53.15±17.16	82.92±8.48
▪ > 40	36.03±3.86	49.44±17.44	86.03±10.02
F value / p-value	2.14/0.12	0.61/0.54	1.29/0.28
Gender			
▪ Male	37.19±5.15	54.15±12.24	83.38±10.75
▪ Female	37.35±4.08	51.74±17.02	84.03±8.48
t value / p-value	0.17/0.87	0.68/0.50	0.33/0.74
Marital status			
▪ Single	38.22±4.39	54.85±15.98	83.02±8.55
▪ Married	36.64±4.16	50.79±16.48	84.45±9.14
▪ Widowed	40.5±0.71	38.00±2.83	77.00±7.07
▪ Divorced	35.00±2.83	47.5±3.54	94.5±3.54
F value / p-value	2.04/0.11	1.26/0.29	1.64/0.18
Level of education			
▪ Bachelor degree	37.04±4.22	50.78±15.36	83.58±8.61
▪ Post graduate degree	37.85±4.40	54.98±17.55	84.52±9.55
t value / p-value	1.03/0.30	1.43/0.15	0.58/0.56
Experience years:			
▪ < 10	37.7±4.17	54.41±16.3	82.99±8.12
▪ 10-20	37.73±4.22	50.96±16.9	83.81±7.34
▪ > 20	35.82±4.48	47.00±14.36	86.64±11.8
F value / p-value	2.19/0.12	2.32/0.10	1.77/0.17

Table (5): Co-relation between Cyber loafing, Procrastination and Job conscientiousness as Perceived by the Studied Head Nurses (N=135).

Variables	Job conscientiousness									
	Cognitive		Deliberate		Order		Endurance		Total job conscientiousness	
	r	p	r	p	r	p	r	p	r	p
Cyber loafing	-0.6	0.52	-0.09	0.32	-0.4	0.000**	0.13	0.12	-0.21	0.01**
1. Social activity	-0.13	0.14	-0.11	0.19	-0.46	0.000**	0.07	0.40	-0.26	0.002**
2. Informational activity	-0.02	0.85	0.06	0.48	-0.31	0.000**	0.17	0.05*	-0.07	0.41
3. Leisure activity	-0.24	0.005**	-0.25	0.003	-0.44	0.000**	-0.01	0.86	-0.38	0.000**
4. Virtual emotional activit	-0.07	0.43	-0.13	0.12	-0.36	0.000**	0.09	0.32	-0.20	0.02*
Cyber loafing activities	0.13	0.15	0.12	0.18	-0.47	0.000**	0.11	0.22	-0.26	0.002**
5. Developmental behavior	0.19	0.03*	0.07	0.39	-0.10	0.25	0.15	0.08	0.09	0.29
6. Recovery behavior	0.03	0.70	-0.11	0.20	-0.32	0.000**	0.11	0.21	-0.16	0.06
7. Deviant behavior	-0.22	0.01**	-0.18	0.04*	-0.52	0.000**	0.04	0.58	-0.36	0.000**
8. Addiction behavior	0.003	0.97	-0.001	0.99	-0.36	0.000**	0.13	0.14	-0.12	0.15
Cyber loafing Behaviors	0.003	0.97	-0.06	0.52	-0.39	0.000**	0.15	0.09	-0.15	0.08
Procrastination	-0.17	0.05*	0.17	0.04*	-0.46	0.000**	0.14	0.11	-0.28	0.001**

* Statistically significant ($p \leq 0.05$)

** highly statistically significant ($p \leq 0.01$)

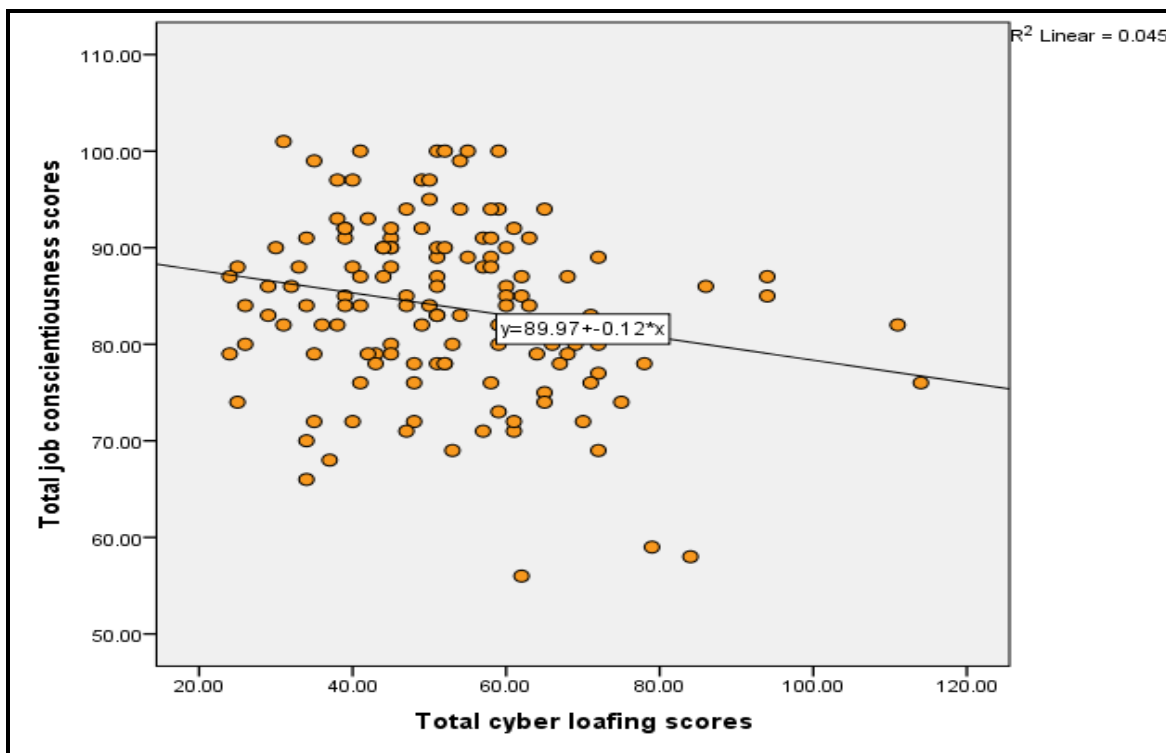


Figure (2): correlation between cyber loafing and job conscientiousness as perceived by the studied head nurse (N=135)

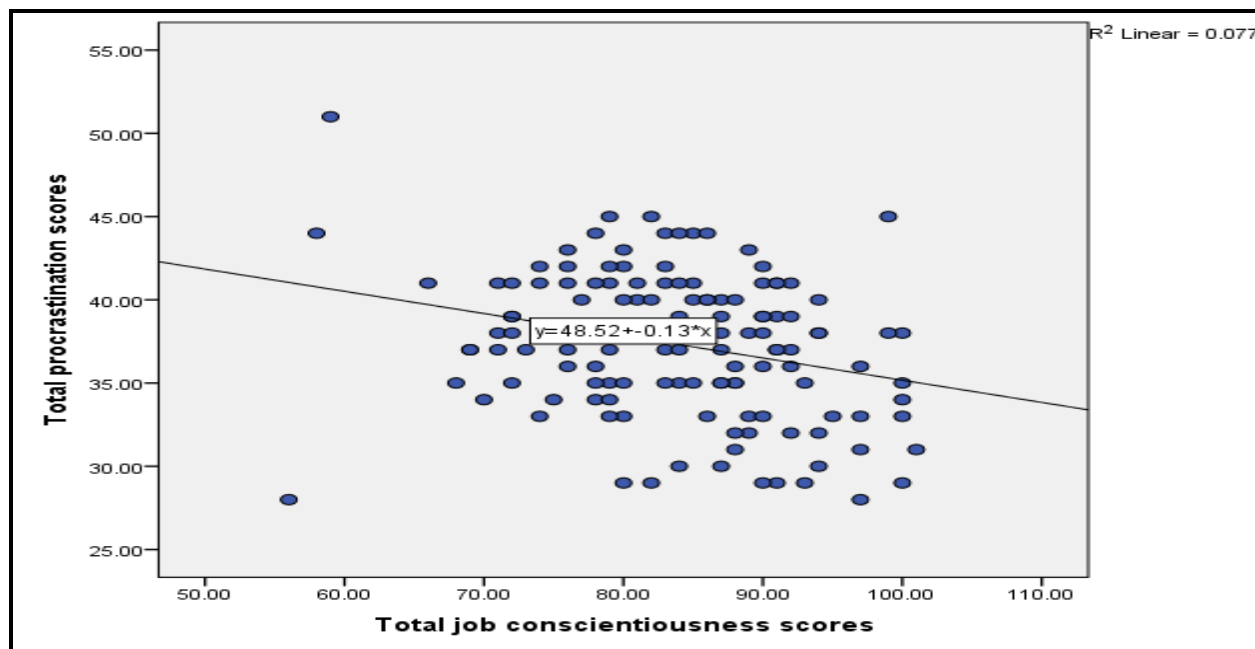


Figure (3): Correlation between Procrastination and Job Conscientiousness as Perceived by the Studied Head Nurses (N=135)

Table (1): Shows personnel and job characteristics of studied head nurses. Regarding age (44.4%) from them aged 31-40 years. 80.7% of them are females. 56.3% are married. 65.9% of them having Bachelor degree in nursing science and (60%) of them have less than 10 years of experience.

Table (2): Shows mean score of cyber loafing, procrastination and job conscientiousness as perceived by the studied head nurses. Informational cyber loafing activity has the highest mean score (7.91 ± 2.61) followed by virtual emotional activity (6.91 ± 2.29). In addition to, developmental cyber loafing behavior has the highest mean score (8.53 ± 3.35) followed by recovery behavior (7.22 ± 3.33). As well, procrastination mean score is (37.32 ± 4.28). As regarding job conscientiousness; order has the highest mean score (22.96 ± 4.16) followed by deliberate (21.31 ± 3.06).

Figure (1): Illustrates the levels of cyber loafing, procrastination and job conscientiousness as perceived by the studied head nurses. They had moderate level of both procrastination (88.9%) and job conscientiousness (74.8%). However they had low level of cyber loafing.

Table (4): Shows relation between cyber loafing, procrastination, job conscientiousness and personal and job characteristics of the studied head nurses. There is no statistically significant relation between cyber loafing, procrastination, job conscientiousness and personal characteristics of the studied head nurses.

Table (5): Shows that there is a highly statistically significant co relation between all cyber loafing activities and job conscientiousness except informational activity. Also, There is a highly statistically significant relation between deviant behavior of cyber loafing behaviors and job conscientiousness. In addition, there is a highly statistically significant relation between procrastination and job conscientiousness

Figure (2): Illustrates the correlation between cyber loafing and job conscientiousness as perceived by the studied head nurses. There is a negative significant correlation between procrastination and job conscientiousness.

Figure (3): Illustrates the correlation between procrastination and job conscientiousness as perceived by the studied head nurses. There is a negative significant correlation between procrastination and job conscientiousness.

Discussion

Using of organization's Internet during working hours for personal needs by staffs has been a most important alarm for health care organizations and can affect job conscientiousness. The study finding revealed that there is a negative significant relation between cyber loafing and job conscientiousness among head nurses at Main Mansoura University Hospital. This means head nurses utilizing the internet for both work related and non - work related objectives, use internet to express opinion or extend their social network ,they face some kinds of

problems move towards cyber loafing in order to overcome stress.

On the same line with current results, **Andreassen, Torsheim & Pallesen (2014)** reported that personality traits of conscientiousness were negatively related to cyber loafing that lead staff to perform according to job expectations and to avoid rule breaking. Furthermore, personality traits have an interactive effects on the occurrence of cyber loafing in the workplace because personality traits indicates the manner in which nurses cope with their stressors, and coping strategies such as withdrawing effort are relevant to cyber loafing producing negative effect on the ability of nurses to develop careful planning, and think carefully before acting (**Elhanahy, 2018**).

On the other hand, there was a significant number of respondents reported that using of technology and internet in workplace had improved their ability to do their job (**Shrivastava, Sharma & Marimuthu, 2016**). In addition to, a positive significant correlation was detected between cyber loafing frequency and job conscientiousness as the more times nurses are cyber loafing, the more conscientious they are (**Zein El Din & Baddar, 2019**). A conscientious nurse is likely to appraise his/her personal resources, using the internet during working time to acquire new skills for personal development to meet task deadlines and complete projects in the near future (**Jia, Jia & Karau, 2019**).

The study finding revealed that there is a negative significant relation between procrastination and job conscientiousness among studied head nurses. This may be related that procrastination at work is a negative and non-productive type of work activity that has been linked to fatigue, and job-related stress. As a result, head nurses engaging in procrastination behaviors. One the same line with current results **Kim, Hong, Lee & Hyun (2017)** they found that procrastination tend to evidence poorer self-control, which diverted from goal achievement and it is associated with feelings of frustration, regret, despair, and even self-blame. In addition to **Herzog-Krzywoszanska, Jewul & Krzywoszanski (2021)** they reported that workplace procrastination harm self , colleagues, organization and clients and was positively related to negative outcomes and low level of job conscientiousness. Furthermore, job conscientiousness, one of the big five personality traits, has a markedly unfavourable relationship with procrastination, which can lead to lower levels of health, well-being, and social performance in individuals (**Gao, Zhang, Xu, Zhou & Feng, 2021**).

This finding was supported by **Przepiorka, Blachnio & Cudo (2021)** who reported that, the more complex and difficult the tasks, the greater the chance of

delaying them. The rate of task completion is negatively associated with procrastination. One unexpected discovery was that there was a moderately positive significant link between procrastination and conscientiousness (**Gopinath, Suresh, Gupta, & Tiwari, 2021**).

The study finding revealed that the level of cyber loafing is very low among head nurses. This is may be due to that the attendance of hospital policies related to internet usage and presence of self-regulated behaviours that enhance work performance. This finding is agree with the study done by **Razali (2020)** who found there is a low level of internet usage in form of cyber loafing. In contrast to, **Garrett & Danziger (2008)** argue that when internet technology becomes a part of the staff standard of operational procedures in the work setting, there is an increased probability that the staff will use the Internet for personal usage . As well , (**Eslami , Elahi, Mohammadi, & Fallahi , 2017**) who reported that managers and seniors are more prone to cyber loafing than others because they hold leadership position that are stressful and head nurses in these positions may wish to relieve the stress by surfing the internet.

In relation to the cyber loafing activities, the informational cyber loafing activity has the highest mean score and developmental cyber loafing behavior has the highest mean score, this may be explained as the head nurses in the study setting prefer to search for information and need to learn new skills. This finding is in line with the study made by **Sheikh, Aghaz, & Mohammadi (2019)** who indicated that informational cyber loafing had a higher mean score than the other dimensions.

The current findings indicate that the level of procrastination among head nurses is moderate which may be due to the fact that head nurses are active procrastinators, making deliberate decisions to procrastinate, using their strong motivation under time pressure, and are able to complete tasks before deadlines and achieve satisfactory outcomes. This finding is consistent in the same line with the findings of the study obtained by **Basirimoghdam, Raffi, & Ebadi (2020)** who reported that the procrastination level was moderate among Iranian nurses. On the other hand, the result is contradicted with **Rezaei , Yarmohammadian & Mahmoodzadeh (2017)** who reported that the most of the participants had low procrastination.

The present study finding indicated that the majority of the head nurses have moderate level of conscientiousness. This could be because nurses are more likely to believe in their capabilities to perform across a variety of situations and nurses with high conscientiousness are more likely to stay on task due

to their tendency, disciplined, and predictable. This result is emphasized by **Zein El Din & Baddar (2019)** who stated that the highest present mean score was for conscientiousness. This finding is disagree with that of **Sleem & El-Sayed (2011)** who reported that the majority of staff nurses at Mansoura University Hospital, had higher scores regarding job conscientiousness. Moreover, **Tseng, Huang, Cheng & Teng (2021)** found that users had high levels of conscientiousness. This result supported by **Kummer et al (2021)** found that conscientious people are hard-working, organized, dependable, and enjoy creative thinking. On the contrary, individuals with a lower functional conscience are impulsive and behave disorganized. Nurses with high level of job conscientiousness more participated in protective health behaviors. Moreover, when nurses participate more in positive behaviours, as they feel energetic and integrated into work, and they are more satisfied with work and their lives (**Huo, Jiang, 2021**).

As regard to personal and job characteristics data, the finding of the present study demonstrated that there is no significant relationship between cyber loafing, procrastination, conscientiousness, and personal data due to that head nurses are engaged with managerial work and which is stressful, multi task and high demand job as they may have no time to use the internet. This finding is consistent with that of **Marzuki, Aziz, Rambli, Adnana & Ismail (2020)** who reported that there is a very weak correlation and no significant between respondent age and cyber loafing activity. Meanwhile, in contradiction with the foregoing studies, **Vayre & Vonthron (2019)** mentioned that participant's age and gender were significantly related to cyber loafing. Specifically, young age participants were more likely to internet for personal use than older.

Furthermore, **Ahmad (2017)** reported that older employees engaged in more cyber loafing compared to younger ones among managerial position and personnel and their peers in Philippines. **Metin-Orta & Demirtepe-Saygılı (2021)** also reported that, the level of cyber loafing differs regarding the age of participants as young age individuals are more likely to cyber loafing behaviour. Also, **Zein El Din & Baddar (2019)** cyber loafing frequency and variability are associated to age group and female nurses had a higher level of cyber loafing, where the older nurses are more predisposed to cyber loaf than younger nurses.

Conclusions

The study was conducted on 135 head nurses. The studied head nurses had low level of cyber loafing and moderate level of both procrastination and job conscientiousness. There were significant negative

correlations between cyber loafing, procrastination and job conscientiousness. There was a negative significant correlation between cyber loafing and job conscientiousness. Furthermore, a negative significant correlation was found between procrastination and job conscientiousness.

Recommendations:

For nursing management :

- Develop clear guidelines, work ethic and policies to limit tasks procrastination.
- A reward and punishment strategy can serve to improve self-control and self-regulation.
- Determine what levels and types of cyber loafing, if any, can be tolerated and educate nurses accordingly.
- Apply role stressor interventions that can help alleviate issues surrounding head nurses cyber loafing.
- Provide a high levels of work engagement and participate in decision making to limit procrastination behaviors.

For head nurses:

- Set deadlines for task accomplishment.
- Create a daily goal and reward yourself when successfully implement it.
- Prioritize tasks and focus on work goals .

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