Knowledge of Risk Factors and Treatment Techniques for Adults with Text Neck Syndrome

معارف عوامل الخطورة و تقنيات العلاج لدى البالغين المصابين بمتلازمة العنق النصية

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Abstract

Objectives: Assess adult's knowledge about risk factors and techniques of treatment of text neck syndrome

Design: A descriptive study design is followed to achieve study objectives from the period of 29th July, 2024 through 18/ 2 / 2025.

Method and subject: A nonprobability purposive sampling was used for selecting the study sample depending on neck disability index (NDI) from peoples attending Kirkuk Center of Rehabilitation in Kirkuk city. A constructed structured questionnaire developed for the purpose of the study consisted of four parts covered sample demographic characteristics include age , sex, educational level, residency and occupation, 2nd part was relevant to medical history that covers drug use, spasm condition and neck disability index, 3rd part concerned history of electronic devices use that encompassed types of device use, smartphone use hours, self-education and it's sources, knowledge of participants of both risk factors and management techniques. The instrument used multiple choice and (True or False)questions style, and scored as (1 for correct answer and 0 for incorrect). A self-administered questionnaire obtained during data collection. A descriptive statistics (frequency percentage and mean of scores and tandard deviation) were used during data analysis of the study

Results: The findings of the study revealed that (50%) of participants has poor knowledge beside (35%) has fair in regard to risk factors. The results also stated that (35%), (40%) for poor and

fair knowledge respectively concerning treatment techniques of TNS.

Conclusions: This study has revealed a poor to fair knowledge about risk factors and treatment techniques among adult people.

Keywords: Knowledge, Risk factor, Treatment, Text neck syndrome

المستخلص

الأهداف: تقييم معارف البالغين حول عوامل الخطورة وتقنيات علاج متلازمة العنق النصية

المنهجية: تم اتباع دراسة وصفية لتحقيق أهداف الدراسة خلال الفترة من ٢٩ حزيران ٢٠٢٤ إلى ١٨ شباط ٢٠٢٥.

الطريقة والمشاركون: تم استخدام عينة غير احتمالية (هادفة) لا ختيار عينة الدراسة , استنادًا إلى مؤشر عجز الرقبة(NDI) من الأشخاص الذين حضروا الى مركز كركوك لتاهيل المعاقين في مدينة كركوك. تم تطوير استبانة منظمة مُعدة خصيصًا لغرض الدراسة، شملت الاستبانة أربعة أجزاء, الجزء الاول تظمنت البيانات الديمغرافية (العمر، الجنس ، المستوى التعليمي ، مكان الاقامة والوظيفة) ، الجزءالثاني ذو صلة بالمعلومات الطبية للعينة شملت (استخدام الادوية، حالة التشنج ، مدة التشنج و مؤشر عجز الرقبة) ، الجزء الثالث تظمنت استخدام الأجهزة الإلكترونية (عدد الاجهزة الالكترونية، عدد ساعات استخدامها، والتثقيف الذاتي عن المتلازمة ومصدرهها ، اما الجزء الرابع كان ذو صلة بمعارف المشاركين حول عوامل الخطورة وتقنيات علاج المتلازمة.استخدمت الاستبانة نمط اسئلة الاختيار المتعدد و (الصح او الخطا) و تم تقييم الدرجات ب (١) للاجابة الصحيحة و (صفر) للاجابة الخاطئة.استخدم اسلوب الادارة الذاتية للاستبانة عند جمع البيانات كما استخدام إحصائيات وصفية (التكرار ,النسبة المئوية, متوسط الدرجة و الانحراف المعياري) خلال تحليل بيانات الدراسة.

النتائج: أظهرت نتائج الدراسة أن (٥٠٪) من المشاركين لديهم معرفة ضعيفة، بينما (٣٥٪) لديهم معرفة متوسطة بخصوص عوامل الخطورة. كما أظهرت النتائج أن (٣٥٪)، و(٤٠٪) من المشاركين لديهم معرفة ضعيفة ومتوسطة على التوالي بخصوص تقنيات العلاج لمتلازمة العنق النصية.

الاستنتاجات: كشفت هذه الدراسة عن مستوى ضعيف إلى متوسط من المعارف حول عوامل الخطورة وتقنيات العلاج لدى البالغين.

الكلمات المفتاحية: معارف, عوامل الخطورة, العلاج, متلازمة العنق النصية

Introduction:

Text neck is the term used to describe the neck pain and injury sustained from looking down while using hand-held, tablets or other wireless device too frequently and for too long (Neupane et.al., 2017). The American Chiropractor Dr. Dean L. Fishman is credited with creating the term "text neck." Text neck, also known as turtle neck posture, is a repetitive stress injury or overuse syndrome that occurs when a person is hunched over and looks looking at their phone or other electronic device for extended periods of time. The end result includes chronic headaches, shoulder, upper back, and neck pain, as well as hand and spinal curvature issues (Abdulwahab et.al., 2019).

Studies reported that 75% of the world's people spends several hours per day using hand-held devices with forward head postures and kyphosis (David et. al., 2021). Since modern day technology is the cause of text neck syndrome, including computers, smartphones, and other smart devices, it must be called as "Pain of the Modern Era" (Yildirim and Correia, 2019). Previous studies argued that the younger users of electronic devices are more likely to develop musculoskeletal symptoms because of the early launching of technology in their daily lives (Regiani et. al.,2019, Shin LY. 2014). Besides that, a study concluded that female students tend to experience more pronounced musculoskeletal

discomfort compared to their male counterparts (Mersal F., 2024). Neck pain and other musculoskeletal diseases are considered to be the 4th and 10th health issues, respectively depending on the World Health Organization (Vos et. al., 2015).

The main factor leading to Text Neck prevalence is the excessive use of handheld mobile electronic devices, particularly smartphones. Computer technology has profoundly influenced the contemporary lifestyle of the people (Neupane et.al., 2017). One of the most commonly seen anatomical changes in the cervical spine is forward head posture, and this condition is often coupled with neck pain. Commonly, forward head posture has been linked to occupational or lifestyle habits which cause an anterior deviation of the neck from neutral, most frequently involving looking forward or down. For example, prolonged computer use, backpack carriage, HHMD use, and even mouth breathing have all been associated with forward head posture (Singla and Veqar, 2017).

Work-related musculoskeletal disorders (MSDs) are frequently connected with ergonomic risk factors such as contact stress and uncomfortable posture (changes in normal working posture). MSDs affect the neck, shoulders, and lower back (LB) and significantly impact a person's well-being and efficiency at work (Yoo and Kim, 2010 , ElShewy et.al., 2016) .

The weight of the head is the key factor in the development of text neck. According to Dewitt D., (2018), in the neutral position, the neck mechanical load on the neck is 4.5-5.4kgs. However, when bending the neck forward (45-60 degrees), the mechanical load on the joints and ligaments of the cervical spine increases to 50-60 pounds, causing excessive strain on the posterior neck muscles. This change in biomechanics of the cervical spine while texting on a mobile phone could be the justification for the increasing prevalence of neck pain in the young population (Hansraj K., 2014 , Gustafsson E., 2012).

Muscle spasms are complex phenomena that result from intricate relationships between biochemical processes, muscular

structures, and the nervous system. In order to diagnose and treat muscle spasms effectively, including possible interventions like physical therapy, medication, hydration, and electrolyte management, it is crucial to comprehend the underlying pathophysiology ***(NINDS)***. A simple exercise routine can be effective in preventing such problems (Letafatkar *et al.*, 2020).

A study has demonstrated a low level of awareness of text neck syndrome amongst young adult population. According Pankti et.al., (2018), only 35% adult population has heard of Text neck syndrome. Also it mentioned about lack of knowledge of Text neck syndrome among them.

The prevalence of text neck pain in Erbil city was 69.0% among children. The level of neck disability score was 17.15 out of 21 among children. Adolescents 96.05% (Aziz and Bakir, 2022), while in Diala city reported (64.5%) of surveyed medical students (Salameh et. al., 2022) In addition, a study depicted that prevalence of academic staff in one of the Malaysian Universities with frequent smartphone use was 41%, (SAl Miaraj and Bhat, 2021) Furthermore, prevalence of text neck syndrome was 32% in India (Shinde et.al., 2022).

This study was conducted due to the paucity of research on TNS and the absence of studies or programs addressing text neck syndrome, its risk factors, and treatment techniques in Kirkuk City in Iraq.

Methodology:

The study was carried out by using a Quantitative - Descriptive design to achieve the early stated objectives. Before conduction the study, participants informed consent were obtained and agreement from committee council of college of nursing were achieved. A non-probability purposive sampling approach is used in order to obtain accurate data. The study was performed at rehabilitation center in Kirkuk city during the period of 29th July, 2024 through 18/ 2 / 2025. For sample size, alpha level at (0.05) and

effect size (medium) had been be depended which constitute (40) participants were selected to participate in the study. Criteria of inclusion include participants with neck disability index 5 points (10%) and more while criteria of exclusion include individuals with past history of neck surgery, disc prolapse and arthritis in neck. The individuals whom answered the items of the questionnaire incompletely were not involved with the overall results of the study. Constructed structured questionnaire developed for the purpose of the study depending on the literatures reviews and previous studies related to Text neck syndrome consisted of four parts.

The 1st part involve self-administered questionnaire sheet related to participants' demographic data which comprised (age, sex, educational achievement, residency and occupation, 2nd part was relevant to medical history that covers drug use, spasm condition and Neck disability severity, 3rd part concerned history of electronic devices use that encompassed types of device use, smartphone use hours, and self-education sources. The 4th part was relevant to knowledge about risk factors of TNS and the 5th part was knowledge concerning management techniques for the syndrome. Neck disability index is a standard pre-validated questionnaire is used to evaluate TNS, it includes ten questions each of which had six options with a score ranging from 0 to 5. Score, the higher score implies that the patient has reported greater neck disability. Knowledge items were designed as a multiple choice questions and (True or False) and they scored as: zero (0) for wrong answers while (1) for correct answers. A content validity of tool was done by a group of experts (12) to check the relevancy, clarity, inclusiveness, and applicability of the questions. Data of the study were gathered by self-administration and for data analysis, descriptive statistics were depended.

Results

Table (1): Distribution of Participants according to their Socio-demographic Characteristics

No.	Characteristics		Study group	
			f	%
1	**Age (year)**	20 – 26	**12**	**30**
		27 – 33	7	17.5
		34 – 40	6	15
		41 – 47	6	15
		48 – 54	5	12.5
		55 – 61	4	10
		Total	40	100
2	**Sex**	Male	13	32.5
		Female	**27**	**67.5**
		Total	40	100
3	**Level of education**	Primary	2	5
		Secondary	6	15
		Diploma	7	17.5
		Bachelor +	**25**	**62.5**
		Total	40	100
4	**Residency**	City center	**39**	**97.5**
		Outside city	1	2.5
		Total	40	100
5	**Occupation**	G. Employee	**21**	**52.5**
		N.G Employee	4	10
		Free work	8	20

		Housewife	2	5
		Student	5	12.5
		Total	40	100

No: Number, f: Frequency, %: Percentage, P: Probability value, Sig: Significance, N.S: Not significant, S: Significant, H.S: High significant

Table (2): Distribution of Participants according to their Medical History Variables and electronic device use

No.	Variables		f	%
1	**Drug intake**	Yes	9	22.5
		No	**31**	**77.5**
		Total	40	100
2	**Current spasm cause**	Posture	3	7.5
		Mobile use	9	22.5
		Sudden move	1	2.5
		Work	**23**	**57.5**
		Others	4	10
		Total	40	100
3	**Duration of spasm in months**	≤ 3 (Acute)	17	42.5
		3 < (Chronic)	**23**	**57.5**
		Total	*40*	*100*
4	**Neck disability severity**	Mild Level	11	27.5
		Moderate Level	**22**	**55**
		Severe Level	7	17.5
		Total	40	100

No: Number, f: Frequency, %: Percentage, P: Probability value, Sig: Significance, N.S: Not significant, S: Significant, H.S: High significant

Table (3): Distribution of Participants according to electronic device use

No.	Variables		f	%
1	**Devices used**	Smartphone only	8	20
		More than one*	**32**	**80**
		Total	*40*	*100*
2	**Smartphone use hours**	≤ 1	6	15
		2	7	17.5
		3	9	22.5
		4	7	17.5
		5 +	**11**	**27.5**
		Total	40	100
3	**Self-education**	Yes	**21**	**52.5**
		No	19	37.5
		Total	40	100
4	**Source of Self-education**	None	19	37.5
		Social media	**14**	**35**
		Scientific site	4	10
		Health team	1	2.5
		Nurses	1	2.5
		Socializing	1	2.5
		Total	40	100

No: Number, f: Frequency, %: Percentage, P: Probability value, Sig: Significance, N.S: Not significant, S: Significant, H.S: High significant, , *Desk top, lab top, I-pad, smartphone

Table (4-a): Assessment of Individuals' Knowledge about risk factors of Text Neck Syndrome

List	Risk Factors	Scale	f (%)	M	Ass.
1	The muscles of the neck and upper back of a patient with text neck syndrome are in a state of spasm	**Incorrect**	25(62.5)	.37	Fair
		Correct	15(37.5)		
2	In a downward tilting position, increased the pressure of the head on the neck in adults	**Incorrect**	16(40)	.60	Fair
		Correct	24(60)		
3	Tilting the head and neck downwards for a long time	**Incorrect**	29(72.5)	.27	Poor
		Correct	11(27.5)		
4	Using the head and shoulder together to hold a smartphone is incorrect	**Incorrect**	22(55)	.35	Fair
		Correct	18(45)		
5	Pushing the neck forward while staring (looking) at a computer, TV, and smartphone can worse for neck strain	**Incorrect**	23(57.5)	.42	Fair
		Correct	17(42.5)		
6	Carrying a heavy bag on one shoulder is considered wrong	**Incorrect**	24(60)	.40	Fair
		Correct	16(40)		
7	Exercising with high effort results in strain neck muscles	**Incorrect**	22(55)	.45	Fair
		Correct	18(45)		
8	Excessive tension and emotional stress cause high pressure in the neck muscles	**Incorrect**	28(70)	.30	Poor
		Correct	12(30)		
9	Driving a car or traveling for a long duration affects the neck	**Incorrect**	16(40)	.60	Fair
		Correct	24(60)		
10	Lifting heavy things with one arm strain the neck muscles	**Incorrect**	15(37.5)	.62	Fair
		Correct	25(62.5)		
11	Sleeping in a position where the head is in relation to the body; the head is at body level	**Incorrect**	27(67.5)	.32	Poor
		Correct	13(32.5)		

12	Using a pillow for sleeping such that it provides support to the head prevents head problems	**Incorrect**	29(72.5)	.27	Poor
		Correct	11(27.5)		
13	Watching television with the head turning to one side for a long time leads to limited neck movement	**Incorrect**	26(65)	.35	Fair
		Correct	14(35)		

Ass: Assessment, M: Mean, (Poor= 0-0.33, Fair= 0.34-0.66, Good= 0.67-1)

Table (4 - b): Assessment of Individuals' Knowledge about risk factors of Text Neck

Knowledge Levels	f	%	M	SD
Poor	**20**	**50**	5.20	3.002
Fair	**14**	**35**		
Good	**6**	**15**		
Total	**20**	**100**		

Syndrome

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation

Poor= 0.00 – 4.33, Fair= 4.34 – 8.66, Good= 8.67 – 13.00

Table (5 – a)): Assessment of Individuals' Knowledge about Management of Text Neck Syndrome

List	Items	Scale	F(%)	M	Ass.
1	Muscle stretching exercises are dangerous with the syndrome	**Incorrect**	22(55)	.45	Fair
		Correct	18(45)		
2	Massage for neck muscles helps relieve muscle tension	**Incorrect**	12(30)	.70	Good
		Correct	28(70)		
3	Techniques for reducing stress (like deep breathing exercises, yoga, and meditation) play a role in relaxing the muscles	**Incorrect**	13(32.5)	.67	Good
		Correct	27(67.5)		
4	Just sticking to daily life activities is enough	**Incorrect**	24(60)	.40	Fair
		Correct	16(40)		
5	Pain-relief medications should be completely avoided to prevent side effects	**Incorrect**	28(70)	.30	Poor
		Correct	12(30)		

6	Using cold compresses doesn't stop the pain at the beginning of the condition	**Incorrect**	30(75)	.25	Poor
		Correct	10(25)		
7	Hot compress therapy for 15-20 minutes is often harmful	**Incorrect**	23(57.5)	.42	Fair
		Correct	17(42.5)		
8	Visiting a physical therapist is only beneficial for consultation	**Incorrect**	31(77.5)	.22	Fair
		Correct	9(22.5)		
9	Muscle relaxants or steroid injections are a useful first option for the condition	**Incorrect**	30(75)	.25	Poor
		Correct	10(25)		
10	Acupuncture has no effect on spasms	**Incorrect**	26(65)	.35	Fair
		Correct	14(35)		

Ass: Assessment, M: Mean, (Poor= 0-0.33, Fair= 0.34-0.66, Good= 0.67-1)

Table (5 – b)): Assessment of Individuals' Knowledge about Management of Text Neck Syndrome

Knowledge Levels	f	%	M	SD
Poor	7	35	4.20	2.285
Fair	8	40		
Good	5	25		
Total	**20**	**100**		

f: Frequency, %: Percentage, M: Mean of total score, SD Standard deviation

Poor= 0.00 – 4.33, Fair= 4.34 – 8.66, Good= 8.67 – 13.00

Discussion

4.1 Discussion of Demographic Data of Individuals with Text Neck Syndrome.

Table 1 presents the socio-demographic characteristics of participants in the study; the findings reveal that participants aged (20–26). This result is consistent with previous study carried out by Bhende et.al., (2024) whom demonstrated that the age of 18-30 years was found to be commonly affected among the 80 participants with text neck syndrome. According to our study's findings in table (3), this result emerged as a result of studying, using a computer, smartphone for hours in addition to translating, for texting, , searching for research, watching videos, and following social media.

Regarding sex, females represents a higher percentage in the study participants (67.5%). This result is accordance with that obtained by Javed et.al, (2023), whom found that most of the participants were female (66.67).

A notable difference is observed in educational level, with the highest percentage of individuals with Bachelor's degrees or higher (62.5%). also concerning residency, the highest percentage of participants resides in the city center, with (97.5%). Both recent findings supported by a study carried out in Jazan, Kingdom of Saudi Arabia, in which 73.2% had a university degree and 53.8% lived in a city (Abdali et.al., 2020). According to literature, young people, for instance, usually prefer to live in metropolitan areas due to their desire for an active city life and the proximity of their jobs, which may affect how they commute (Vos & Alemi, 2020). The trend of urban residency challenges participants' mobility patterns and lifestyle priorities, especially in relation to their occupation and travel habits.

Also, our findings stated that government employees represent the highest percentage (52.5%) of the sample. The mentioned findings were in line with Al-Mussawi and Al-Jubouri (2024), who stated that the highest percentage of the sample (32.5%) were employed. The majority (77.5%) of participants with text neck syndrome report no concern in their history of drug use. Our study's results provide support for the notion that there may be a correlation between TNS and drug use, highlighting the necessity for further research in this area to better understand the possible relationship between the two factors.

The currents cause refers to work as the most common cause of current spasm in the study (57.5%). This study result agrees with Petit et al., (2018) and Andersen, et al., (2011) whom reported that upper body complaints have become more widespread among employees. Neck pain (NP) is quite prevalent and can cause physical exertion among office workers than other occupations .

Our research shows that 57.5% of participants in the study experienced persistent spasms lasting longer than three months. This result is in tune with a previous study carried out by Johnson et al. (2022), who stated that chronicity rates were considerably elevated in both the treatment and control groups across diverse interventions. This indicates that external factors, including socioeconomic position, lifestyle, and psychological influences, may significantly contribute to the chronicity of illnesses. The data suggested that individuals who experience chronic spasms would need longer-term follow-up care, which could include counseling, medication, or physical therapy. This is consistent with other research findings that interdisciplinary approaches to management are frequently required for chronic spasm diseases (Sharma et. al., 2020).

Also the results show that higher percentage (55%) of participants have moderate neck disability. A study findings depicted that about one-third of the responders (36.4%) suffered from mild neck pain, and 40% had mild pain and (23.6%) had severe pain (Bhende et.al., 2024).

4.2 Discussion of electronic device use of participants with text neck syndrome

The study findings show that majority of participants use more than one device including smartphone (80%). This result is in accordance with Kaur et.a., (2021) when they discovered that 56.6% of participants are using more than one smart device. In addition, a higher percentage of participants using cellphones for more than 5 hours account (27.5%). This finding is in good agreement with the study conducted among the Saudi population in Jazan, among the participants, 61% used smartphones for more than 5 hours per day (Abdali et.al., 2020).

Regarding self-learning, the study participants engaging in self-learning were constitutes (52.5%). In addition, study outcome

stated that (50%) of participants more frequently use social media as source of learning. The before mentioned finding is in accordance with Kaur et.al., (2021) whom found that participants heard about text neck syndrome was through medical sources, social media and friends. Also other study agree with our result when showed that less than half of participants rated "Yes" to the item "Updating the data," accounting for 21 (42%) of the sample(Kadhim et.al., (2021).

Furthermore, a study found that average time spent on social media globally in 2019 was 2 hours 16 minutes. It however differs from country to country as data showed that social media users in Japan spent ½ hour per day whereas social media users in the Filipine spent four (4) hours 12 minutes per day (Digital, 2019). The time students spend on handheld devices is alarming.

4.3 Discussion of Individuals' knowledge about risk factors and treatment techniques of Text Neck Syndrome

The findings of this study demonstrated that 50% of participants' knowledge was poor, while 35% was fair about risk factors of text neck syndrome, which was indicated as a poor to fair level of knowledge. Our findings are consistent with those of Majed et al. (2021), who stated that most of the participants (68.1%) didn't hear about TNS. This result showed the low levels of knowledge about text neck syndrome and indicated the high level of ignorance regarding this syndrome (Alghamdi et al., 2021). Similar results were reported in an Indian study, where 27% have heard about TNS but don't know about it, whereas 8% have heard about TNS and know about it, and 65% haven't heard about TNS (Samani et al., 2018). Furthermore, in the Peshawar study, 119 (39.8%) physical therapy students were not aware of TNS, 101 (33.8%) heard about it but don't know what it is, and 79 (26.4%) students were aware of TNS (Khattak et al., 2020).

Numerous factors, such as sample size, study design, and socioeconomic variables, could be responsible for the variations in

the percentages. According to Majeed et al. (2024), the most common patient-related barrier is inadequate pain control assessment and management, so it is imperative that patients and caregivers receive education on pain assessment and management. Moreover, a study revealed that 73.3% of participants believed that poor posture was the cause of text neck syndrome. In addition, it is noteworthy that 53.3% experience pain or stiffness while utilizing smart devices, signaling an urgent need to enhance efforts and develop strategies to educate and raise awareness regarding text neck syndrome, which may result in chronic conditions over time (Kaur et.al., 2021).

The result was also compatible with the study of Cohen et al. (2021), who conducted a systematic review to investigate the prevalence of neck pain among office workers. The review discovered that approximately 30-50% of office workers experience neck pain and identified several risk factors, including prolonged computer use, poor workstation ergonomics, and a lack of physical activity. Kadhim et al. (2024) concluded that their study supports the potential benefits of the mindfulness intervention in overcoming fatigue and improving the job satisfaction of nurses working in the emergency department.

The results of the present study also display the participants' awareness about the techniques of management of text neck syndrome, the finding concur that participants have poor to fair level of knowledge. The finding of the study was in consistent Shinde et.al., (2023) who concur that recent research highlights a lack of awareness among individuals regarding (TNS) and dressing techniques such as ultrasound, proper postures, massage, manual exercise, cervical muscle stretching and strengthening, cold and hot pack, and McKenzie and the exercises needed for management, leading to widespread neck discomfort. In addition, Jaleel and Bakey, (2024) reported that participants care knowledge has increased dramatically as a result of the educational program.

On the other hand, literatures reported some of the techniques necessary to be done to get relief from text neck; warm up neck muscles time to time, stretches, chin and scapula retraction, rest, talk more and text less, apply ice or heat, massage, adapt better posture, and modify lifestyle (AlZarea and Patil, 2015). AL-Shammary and AL-Fayyadh, (2024) concurred that non-pharmacologic pain management approaches may explain that significant difference, using the pain gate control theory pillars. Al-Fahham and Al-Jubouri, (2024) indicates that foot massage and foot ROM exercise therapy have a significant effect on reducing DPN levels. Finally, for importance, a study found that most of sample had some problems in self-care (82%) and usual activities (90%) during pre and posttest (Isam and Hassan, 2023)

Depending on clear outcome of our study, there is a pressing need for educating peoples on proper posture when using electronic devices and self-care and dressing strategies for handling neck spasms individuals to avoid long-term complications, which are most common at a young age and adults, besides that, the widespread use of smartphones and tablets has led to a significant increase in musculoskeletal issues, particularly in the neck region. The rising prevalence necessitates effective community-based strategies to promote awareness and encourage self-management in regard to TNS .

Conclusions:

The present study confirmed that adult persons have poor to fair knowledge in regard to risk factors as well as management techniques of text neck syndrome.

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