Research Paper

Validity and Reliability of the Persian Version of Profile Fitness Mapping Neck Questionnaire

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ABSTRACT

Purpose: Many available questionnaires fail to distinguish between the severity of symptoms and functional limitations caused by neck pain in different areas. Therefore, determining symptoms and functional limitations that are associated with existing neck pain is difficult. The lack of a specific questionnaire for functional symptoms and constraints related to neck pain in Persian has made it necessary to develop new and reliable tools in this field. Therefore, this research aims to localize and validate the Persian version of this questionnaire.

Methods: The questionnaire was finalized after necessary corrections were made using the translation back-translation method. The content validity index (CVI) and content validity ratio (CVR) were used to ensure content validity. The internal consistency test (Cronbach α) reliability and test re-test reliability were assessed.

Results: The CVI results indicated that all questions scored above 0.79 in communication, clarity, simplicity, and ambiguity. The questionnaire demonstrated a high level of content validity with an S-CUI/Ave (scale-level. CVI. based on the average. method) of 0.94. Statistical analysis revealed high internal consistency for the symptoms (27 questions, Cronbach α=0.91) and functional limitations (20 questions, Cronbach α=0.93) sections of the questionnaire.

Conclusion: After conducting the questionnaire, it is possible to identify people with varying levels of pain and functional limitations associated with neck pain. It can help determine the progression of symptoms and limitations.

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Highlights

• The state of pain and the functional ability of people with neck pain are essential indicators in research to provide them with better care, which can be measured through valid questionnaires.

• The main advantages of profile fitness mapping neck questionnaire are determining and distinguishing the pain index and functional limitations; the pain intensity and frequency are measured, and the final result is expressed as a percentage, which has a simple interpretation.

• In addition to the validity and reliability of the final questionnaire presented in this research, it has also been culturally adapted to the common social behaviors and lifestyles of the people of Iran and Persian speakers.

Plain Language Summary

Neck pain is a common health issue impacting many individuals each year. A reliable tool to assess pain levels and functional ability of those experiencing neck pain can significantly assist specialists in providing better services and evaluating interventions. The fitness mapping neck questionnaire is an effective and updated tool, providing valuable information and indicators. To ensure validity, questionnaires must be in a simple and understandable language for respondents. It is crucial to consider the cultural and biological differences of the population when translating questionnaires. The finalized questionnaire was translated and revised by 10 experts and then evaluated for validity and reliability, yielding positive results. For trainers, therapists, and researchers working with individuals experiencing neck pain, the Persian version of the fitness mapping neck questionnaire can be utilized to assess pain and functional disability.

Introduction

Neck pain, defined as pain extending from the upper cervical line to the level of the scapulae, may manifest as radiating discomfort affecting the head, trunk, and upper limbs [1]. This condition is the second leading cause of disability globally [2], and around 67% of individuals experience neck pain at some point in their lives. Also, 20% of these cases progress to chronic neck pain, a pain persisting for over 3 months [3]. Evaluating and documenting a person's pain, other symptoms caused by neck pain, and functional status is essential in understanding its impact on their lives. An approved and valid criterion for measuring pain and functional limitations is critical in clinical evaluation and services [4]. For most cases of neck pain, the risk factors are multifactorial, and precise pathophysiological mechanisms are lacking [5].

Without causal treatment alternatives, therapeutic interventions focus on symptom alleviation, while rehabilitation programs are implemented to enhance functional status [6]. Therefore, it is crucial to utilize validated questionnaires to assess pain, other symptoms, and functional limitations in neck pain disorders. This approach is essential for characterizing the patient population and evaluating the effectiveness of rehabilitation efforts.

An important part to consider in validating a condition-specific questionnaire is that the questions should mirror the typical problems of the target group [7]. To evaluate the effectiveness of treatments in chronic pain clinical trials, the use of different measures within certain core outcome domains is recommended by the initiative on methods, measurement, and pain assessment in clinical trials (IMMPACT) [8]. Pain is the most obvious domain, and pain intensity is one of the primary outcome measures used the most [8]. However, to better describe a patient's pain experience, different sensory and temporal aspects of pain need to be investigated. For example, pain frequency represents a distinct aspect and a valid measure of pain [9]. Pain frequency is, however, rarely used as an outcome measure in clinical trials [8] and is also scarce in neck-specific questionnaires [10].

Recent research indicates that the correlation between pain and disability, specifically activity limitations, is weaker when neck pain symptoms are mild and comorbidities are minimal [11]. Hence, pain and disability are suggested to be interpreted as distinct dimensions and measured separately to detect subgroup differences [11]. Mixing items that focus on different domains in the same index, such as pain and disability in the neck disability index (NDI) [12] and the Northwick Park neck pain questionnaire [13], may thus hamper detailed tailoring of treatment based on the outcome measure [7]. It may also increase the risk of failing to detect changes within each domain.

A consequence can be that the patient improves in one domain and worsens in the other without a changed index score; this consequence is called item-masking score bias [7]. However, composite measures may be considered helpful for overall patient judgment in clinical practice. Thus, having separate indices for pain/symptoms and functional limitations and a compound total score appears advantageous. Surprisingly, we have not found any neck-specific questionnaire that meets this need. The current study describes and evaluates the reliability and validity of a profile fitness mapping neck questionnaire to assess symptoms and functional limitations in people with neck pain. It consists of a symptom scale, a further subdivision into separate indices for the intensity and frequency of symptoms, and a functional limitation scale. It also offers a compound total score for a clinical overall judgment of the patient. Thus, it meets the need for both indices of separate domains and being a composite measure. This neck questionnaire has a patient's perspective in that the experiences of the sufferers' symptoms and functional limitations contribute to the inclusion of the scales in the items. The final result of each index is expressed as a percentage, with 100% representing the best possible state.

It is essential to consider the placement of specific questionnaires to determine whether pain or movement limitation is the dominant problem. This study aims to assess the extent of symptoms and functional limitations in people, including their severity and duration. When conducting research in the Middle East, especially in Iran, it is essential to consider the diverse lifestyles and bio-cultural differences present in the region. This issue involves comprehending the social behaviors and religious customs concerning cleanliness and hygiene. Hence, it is crucial to meticulously revise and customize international questionnaires to harmonize with the particular norms and practices of the host country [14]. The currently available questionnaire in the Persian language has generally demonstrated pain and function limitations. Consequently, the source of the problem would be unclear. However, the profile fitness mapping (PFM) questionnaire separately indicated pain and function. Therefore, we can assess the cause of the problem for solving. Thus, this study aims to evaluate the reliability and validity of a new questionnaire for mapping physical fitness in the neck area, in which cultural adaptation has been considered. The target respondents of this questionnaire are individuals experiencing chronic neck pain.

Materials and Methods

Questionnaire translation

The PFM questionnaire in the neck area was translated from English to Persian using the guidelines recommended by the International Quality of Life Assessment Group [14]. In the first stage, two native Persian speakers distinctly translated the original English questionnaire into Persian. After arguing about the differences, they agreed on a unified version. Two bilingual Persian translators translated the same version into English and corrected any errors (if needed). The final version was piloted among 61 Persian-speaking individuals with chronic neck pain to identify complex or incomprehensible items or answers.

Two methods were used to determine content validity: Content validity ratio (CVR) and content validity index (CVI). Ten experts in corrective exercise and sports injuries, who were university professors, were asked to choose one of three options to determine the CVR: a) Necessary, b) Helpful but not necessary, and c) Necessary for each question or item. According to Lawshe table [15, 16], if the score obtained for each question is more significant than 0.62 (based on evaluations from ten experts), it suggests that the question is essential and necessary to be included in the tool with an acceptable level of significance. Ten experts were asked to evaluate each question's CVI, relevance, clarity, simplicity, and ambiguity using a 4-point Likert scale. One way to assess the relationship between two items is by using a scale of 1 to 4. The options are "no relation", "somewhat related", "good relation", and "very high relation". CVI was calculated as the percentage of items with agreeable points (ranks 3 and 4) among total voters. The CVI score required for item acceptance was higher than 0.79 [17].

Research inclusion and exclusion criteria

Considering similar studies and the number of questionnaire questions, 61 people with a history of chronic neck pain completed the questionnaire in physiotherapy clinics in Tehran City, Iran. Individuals who were diagnosed with chronic neck pain by a physician and underwent physical and orthopedic examinations were considered eligible for the study. The study focused specifically on individuals who experienced pain in their neck [18] and had been experiencing it for more than 6 months, both when at rest or stretching their neck. The study excluded various conditions, including rheumatoid arthritis, cancer, connective tissue diseases, infectious diseases, lumbar disk conditions, spinal canal stenosis, and vertebral

dislocation [19]. After applying the selection criteria, 65 individuals were chosen to assess the questionnaire's validity and reliability.

Test re-test reliability of the Persian version of the PFM questionnaire

The PFM neck pain questionnaire is a sensitive and reliable tool for recording the pain and movement limitations of people with chronic neck pain [20]. This questionnaire is based on 27 key questions of the symptom scale, 20 questions of functional limitation, and a score that differentiates between the severity, duration of pain, and functional limitation of people with neck pain. A total of 65 participants were asked to complete questionnaires to assess the test's reliability. Out of the 65 questionnaires that were given to athletes, 61 were returned, giving a response rate of 94%. As the neck pain questionnaire is designed for individuals with chronic neck pain, the research participants were purposefully and homogeneously selected. Participants were selected via convenience sampling and provided written consent to participate. The participants completed the questionnaire once again after two weeks. The people who did not complete the questionnaire at the appointed time were reminded by phone. Those who still needed to complete the second questionnaire (re-test) were removed from the review process.

Symptom scale

The PFM symptom scale consists of 27 questions and measures the severity and duration of symptoms. The symptoms are assessed in two aspects: Intensity and time. Therefore, each question in this section has a two-part answer. Each of the 27 questions in the survey is assigned a numerical value ranging from 1 to 6 based on the duration of symptoms and 7 to 12 based on the severity of symptoms. The scale's total score determines ranges for the duration and severity of symptoms between 27 to 162 and 189 to 324, respectively. For each question, the numerical values of the answers range from 1 to 12. The scale is as follows: 1 represents "never", 2 for "rarely", 3 for "very little", 4 for "sometimes", 5 for "often", 6 for "always" or "most of the time" of the symptoms, 7 for "not at all" or "none", 8 for "little" or "weakly" 9 for "moderately low" or "moderately weak", 10 is "moderately high", 11 is "high", and 12 is "very high" and "intolerable" for the severity of symptoms. Higher scores indicate greater injury severity [3].

Functional limitation scale

The 20-question PFM functional limitation scale was used to evaluate functional limitations in daily activities caused by chronic neck pain. The answer to these 20 questions is assigned a numerical value between 1 and 6, and the sum of these values determines the person's functional limitation score between 20 and 120. The answers to the questions will be rated based on a 6-point scale to provide a comprehensive evaluation. The scale ranges from 1 to 6, with 1 indicating that the response is very good and there are no issues to report, 2 representing a good response, and a score of 3 indicating a pretty good response. A rating of 4 suggests that the response was inadequate, while a score of 5 indicates a poor response. Finally, a score of 6 indicates that the response was feeble. The higher the points obtained, the more functional limitations caused by chronic neck pain in daily activities [3, 14].

Statistical analysis

SPSS software, version 24 (IBM Corp, Armonk, NY) was used to analyze data. Tests to evaluate people in clinical settings should be highly reliable and acceptable [21]. With a statistical power of 80%, an expected reliability of 90%, and a significance level of ≤0.05, the necessary sample size for the research would be 49 participants. Then, Cronbach α was used to evaluate the internal consistency of the questions. In such a way, 0 indicates no internal homogeneity, and 1 indicates complete internal homogeneity. Since this questionnaire allows people to specify the type of their health problem in terms of different degrees of severity, time of pain, and functional limitation, people may choose a different option for the first time than the re-test or vice versa.

Results

Translating and localizing the questionnaire

No significant differences were found between the English-translated questionnaire and the original. According to the values obtained from the content ratio analysis, all questionnaire questions had an acceptable significance level (0.75-1). It is worth mentioning that the questionnaire's average CVI (S-CVI/Ave) was 0.94. Statistical analysis revealed that the symptom scale and functional limitation questionnaire had high internal consistency, with Cronbach α values of 0.91 and 0.93, respectively. Table 1 presents the impact of removing items on the internal consistency and correlation of the modified total item for the symptom scale.

Table 1. Modified item-total correlation and the effect of removing items on the internal consistency of the symptom scale

Frequency and Intensity of Questions		Cronbach α, If Item Deleted	Corrected Item-total Correlation	Scale Average If Item Deleted	Scale Variance If Item Deleted
Question 1	Frequency	0.809	0.328	295.33	304.291
	Intensity	0.813	0.206	290.77	313.913
Question 2	Frequency	0.814	0.186	294.87	311.716
	Intensity	0.813	0.169	290.82	316.250
Question 3	Frequency	0.799	0.601	296.46	288.486
	Intensity	0.806	0.546	291.11	306.570
Question 4	Frequency	0.812	0.252	295.80	314.561
	Intensity	0.821	-0.260	291.05	330.081
Question 5	Frequency	0.806	0.453	295.75	302.889
	Intensity	0.815	0.083	290.74	319.063
Question 6	Frequency	0.796	0.674	296.02	285.183
	Intensity	0.811	0.273	290.80	313.494
Question 7	Frequency	0.815	0.119	295.18	316.650
	Intensity	0.828	-0.364	290.61	337.209
Question 8	Frequency	0.807	0.418	295.77	304.346
	Intensity	0.812	0.239	290.84	312.439
Question 9	Frequency	0.811	0.278	295.28	309.538
	Intensity	0.822	-0.345	290.85	332.128
Question 10	Frequency	0.800	0.680	296.52	296.354
	Intensity	0.814	0.134	290.59	317.279
Question 11	Frequency	0.797	0.690	296.72	288.804
	Intensity	0.814	0.140	291.38	319.072
Question 12	Frequency	0.801	0.614	296.92	296.310
	Intensity	0.809	0.388	290.93	311.696
Question 13	Frequency	0.812	0.251	295.59	309.013
	Intensity	0.819	-0.023	290.69	322.518
Question 14	Frequency	0.815	0.123	296.00	316.733
	Intensity	0.813	0.186	291.02	317.883
Question 15	Frequency	0.807	0.430	296.34	305.363
	Intensity	0.817	-0.008	291.03	322.432

Frequency and Intensity of Questions		Cronbach α, If Item Deleted	Corrected Item-total Correlation	Scale Average If Item Deleted	Scale Variance If Item Deleted
Question 16	Frequency	0.799	0.736	296.03	294.266
	Intensity	0.816	0.048	290.95	320.848
Question 17	Frequency	0.818	0.057	295.34	318.163
	Intensity	0.819	0.004	290.25	320.989
Question 18	Frequency	0.810	0.305	295.38	308.339
	Intensity	0.834	-0.375	289.70	342.445
Question 19	Frequency	0.802	0.538	295.64	294.801
	Intensity	0.813	0.169	290.72	317.071
Question 20	Frequency	0.804	0.532	296.16	301.806
	Intensity	0.813	0.195	290.79	313.837
Question 21	Frequency	0.812	0.231	294.92	313.977
	Intensity	0.814	0.148	290.62	317.105
Question 22	Frequency	0.812	0.247	295.33	310.791
	Intensity	0.819	-0.08	289.97	324.766
Question 23	Frequency	0.811	0.278	295.61	310.543
	Intensity	0.824	-0.336	290.85	333.528
Question 24	Frequency	0.809	0.355	296.38	310.239
	Intensity	0.818	-0.048	290.75	323.622
Question 25	Frequency	0.801	0.65	296.67	296.657
	Intensity	0.812	0.247	291.46	317.319
Question 26	Frequency	0.804	0.535	297.02	299.55
	Intensity	0.812	0.236	291.54	317.688
Question 27	Frequency	0.798	0.726	296.66	290.83
	Intensity	0.81	0.395	291.26	313.63

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Table 2 presents the same functional limitation. The reliability test aims to distinguish fundamental differences in scores from random measurement errors. Hence, the Table 1 displays the reliability of all questions during the test re-test for each question.

Discussion

Our study aimed to translate and cross-culturally adapt the questionnaire on physical fitness mapping in Persian and assess its reliability and validity. Hessam et al. showed that the Persian Copenhagen neck functional disability index, neck Bournemouth questionnaire, and spine functional index have an acceptable level of responsiveness and can identify clinical changes following physical therapy interventions in patients with chronic neck pain [15]. According to a review study by Fang et al., people with chronic neck pain may recover after acupuncture. However, there may be continuous pain and limited movement in the neck. Hence, people who have acupuncture have mild to moderate persistent neck pain, and they have functional limitations and pain, so identi-

Table 2. Modified item-total correlation and the effect of removing items on the internal consistency of the functional limitation scale

Questions	Cronbach α, If Item Deleted	Corrected Item-total Correlation	Scale Average If Item Deleted	Scale Variance If Item Deleted
Question 1	0.860	0.399	52.11	110.937
Question 2	0.848	0.707	51.84	102.339
Question 3	0.852	0.634	51.59	106.746
Question 4	0.853	0.637	51.79	108.104
Question 5	0.866	0.243	51.84	114.639
Question 6	0.870	0.091	50.69	117.951
Question 7	0.863	0.322	51.23	113.58
Question 8	0.846	0.740	51.92	101.81
Question 9	0.852	0.601	52.28	104.971
Question 10	0.849	0.659	51.51	101.521
Question 11	0.858	0.487	52.02	110.55
Question 12	0.854	0.553	51.33	104.657
Question 13	0.854	0.559	51.62	102.772
Question 14	0.860	0.397	51.92	112.11
Question 15	0.859	0.433	52.05	111.781
Question 16	0.855	0.551	51.95	108.181
Question 17	0.878	-0.14	51.25	122.622
Question 18	0.853	0.598	51.52	107.287
Question 19	0.863	0328	51.41	114.413
Question 20	0.866	0.247	51.62	114.339

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fying these people should be a priority for interventions [1]. Yu et al. reported that the methodological quality of cross-cultural adaptations conducted by the neck Bournemouth questionnaire generally exhibits low standards, primarily attributed to inconsistent selection of translators, inadequate representation in expert committees, and a lack of comprehensive clinical evaluation regarding internal consistency, responsiveness, and interpretability [16]. Ahmad et al. surveyed the Hausa Northwick Park neck pain questionnaire, which was translated and cross-culturally adapted into Hausa using recommended guidelines. The Hausa-NPQ is a valid and reliable measure of disability due to neck pain [17]. Sixty-one people participated in this research; 31 were men, and 30 were women.

The PFM questionnaire is the first to simultaneously cover pain intensity and frequency symptoms as a functional limitation. It provides the ability to record and distinguish between these concepts among people. According to experts, the final version of the Persian PFM symptom scale questionnaire with 27 questions was presented. Also, the final second part of the Persian questionnaire on the functional limitation scale in the neck region was presented with 20 questions.

In this research, several factors can affect the test re-test reliability. One of these factors is the time interval between the test and the re-test, which was determined to be 10 days in the current research. A time interval between 2 and 14 days between the test and re-test is recommended [18]. Shorter time intervals increase reliability because participants remember the answers more

Table 3. Reliability of test re-test scores of frequency and severity of symptoms scale and functional limitation scale

Questions	Functional Limitation	Symptom Intensity	Symptom Frequency
Question 1	0.938	0.964	0.972
Question 2	0.97	0.966	0.984
Question 3	0.968	0.927	0.967
Question 4	0.952	0.954	0.923
Question 5	0.973	0.849	0.971
Question 6	1.000	0.960	0.986
Question 7	0.990	0.963	0.958
Question 8	0.970	0.979	0.947
Question 9	0.994	0.925	0.978
Question 10	0.982	0.965	0.986
Question 11	0.972	0.947	0.978
Question 12	0.985	0.932	0.989
Question 13	0.966	0.970	0.987
Question 14	0.94	0.946	0.973
Question 15	0.929	0.952	0.993
Question 16	0.963	0.679	0.973
Question 17	0.967	0.982	0.984
Question 18	0.937	0.985	0.973
Question 19	0.964	0.919	0.988
Question 20	0.958	0.987	0.979
Question 21	-	0.890	0.983
Question 22	-	0.926	0.863
Question 23	-	0.926	0.967
Question 24	-	0.981	0.954
Question 25	-	0.905	0953
Question 26	-	0.922	0.972
Question 27	-	0.936	0.978

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quickly. On the other hand, long time intervals provide the possibility of changes in the intensity and frequency of neck pain and functional limitation, thus causing the reliability of the questionnaire to be estimated as lower than its actual value. The statistical test showed good to excellent reliability between the test and re-test scores in the two scales of symptoms and functional limitations presented in Table 3. Also, the lack of significant difference between the test and re-test scores confirms this questionnaire's desirable and acceptable reliability.

Some participants in this study changed their scores during the test re-test. It indicates the fluctuation between the time intervals according to the person's activity and performance. Also, a more suitable method for recording this neck pain has not been provided until now. However, despite limitations in determining the type of problem, the present method records the consequences well to a large extent. The questionnaire has good internal consistency, similar to the original English version. Based on Tables 1 and 2, removing items does not improve the overall Cronbach α value. It indicates that each question contributes equally to the measured factor. The effectiveness of this method of collecting data largely relies on the number of people who respond to it. In the current study, the average response rate of people who answered the PFM questionnaire was 93%, which is desirable and high. This high response rate helps reduce the possibility of response bias during the test re-test [20]. While the high rate is currently being maintained, it may not be sustainable in the long run. However, motivating people to participate could help address this issue. On average, people took 7 minutes to complete the questionnaire.

It is important to note that using this questionnaire has limitations. Information on neck pain should be narrower based on people's reports and definitions. Many cases of reported neck pain may only occur after physical activity. The solution to this problem is immediately confirming issues reported by people with medical evaluation, increasing research difficulty and costs.

The accuracy of the questionnaire is contingent on individuals providing truthful responses. However, some may feel hesitant to report symptoms or motor disabilities as they fear it could negatively impact their ability to carry out the daily activities that they enjoy. In such cases, the authenticity of the responses may be questioned. People should be assured that their answers will be used confidentially and only for research to reduce risk. Each questionnaire can include this explanation in a note or writing. Another limitation of using the PFM questionnaire is that only information about the neck region is recorded, and the type of injury or its exact diagnosis is not determined. Of course, this information is accessible based on clinical assessment, and it seems people cannot provide it accurately. However, in future studies, the degree of agreement between the results of people's self-assessments and the doctor's diagnosis of the type of problem should be investigated.

Conclusion

A practical tool for monitoring health was translated and published to prevent the emergence of different versions and allow for comparison of research findings conducted in various countries. The PFM questionnaire was translated into Persian using standard methods, and cultural contexts were also considered. Its validity and reliability were confirmed for use among Persian-speaking people. The final Persian (Farsi) version of profile fitness mapping Neck questionnaire form is provided in Appendix 1. In future studies, the PFM questionnaire could be administered electronically via mobile apps, saving time and streamlining data collection and processing. Based on the current research findings, the physical fitness mapping questionnaire for the neck region has introduced a new method for accurately recording the types of neck pain problems people face. This method is reliable and valid in monitoring and recording the symptoms and functional limitations caused by neck pain.

Given the characteristics of the research, there may be limitations regarding the generalizability of the results to populations outside Tehran, especially different Iranian ethnicities or individuals with varying types of neck pain etiology.

It is suggested that new questionnaires be translated and localized based on the culture and traditions of Iranian life for broader use of other assessment tools. A study is also recommended to examine the semantic differences in sentences for different ethnicities in Iran.

Ethical Considerations

Compliance with ethical guidelines

All ethical considerations regarding research and protecting individuals' privacy were strictly adhered to in this study.

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Authors' contributions

All authors contributed equally to the conception and design of the study, data collection and analysis, interception of the results and drafting of the manuscript. Each author approved the final version of the manuscript for submission.

Conflict of interest

The authors declared no conflict of interest.

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Appendix 1. Persian (Farsi) version of Profile Fitness Mapping Neck questionnaire

	پرسشنامه ارزیابی نیمرخ آمادگی عملکردی ناحیه گردن			
	با توجه به راهنمای سمت چپ در ستون اول اعداد ۱ تا ۶ و در ستون دوم اعداد ۷ تا ۱۲ را وارد نمایید. سوالات بخش اول: مقیاس علائم گردن درد	دوره بروز علائم (۱ تا ۶)	شدت بروز علائم (۷ تا۱۲)	
۱	آیا احساس خشکی یا سفتی در گردن داشته‌اید؟	☐	☐	(دوره بروز علائم) هر چند وقت یک‌بار که تجربه‌ی موارد زیر را داشته‌اید بین عدد ۱ تا۶ نمره بدهید: ۱. هرگز ۲. به ندرت ۳. خیلی کم ۴. گاهی اوقات ۵. اغلب اوقات ۶. بیشتر اوقات و یا همیشه
۲	آیا احساس درد و ناراحتی در گردن داشته‌اید؟	☐	☐	
۳	آیا احساس کشش و تنش در گردن داشته‌اید؟	☐	☐	
۴	آیا تجربه شنیدن صدای ترق در گردن داشته‌اید؟	☐	☐	
۵	آیا تجربه خستگی (کوفتگی) در گردن داشته‌اید؟	☐	☐	
۶	آیا احساس ضعف در گردن داشته‌اید؟	☐	☐	
۷	آیا تجربه قفل شدگی در گردن داشته‌اید؟	☐	☐	
۸	آیا تجربه‌ی بی‌قراری و ناراحتی در دست ها داشته‌اید؟	☐	☐	
۹	آیا احساس گزگز و اختلال حس در گردن یا دست داشته‌اید؟	☐	☐	
۱۰	آیا مشکل یا درد و ناراحتی در فک یا جویدن خود داشته‌اید؟	☐	☐	
۱۱	آیا تجربه سرگیجه داشته‌اید؟	☐	☐	
۱۲	آیا احساس از دست دادن تعادل داشته‌اید؟	☐	☐	(شدت بروز علائم) هر چقدر از شدت علائم زیر را داشته‌اید بین عدد ۷ تا۱۲ نمره بدهید. ۷. اصلا و یا هیچ ۸. کم و یا ضعیف ۹. نسبتا کم و یا نسبتا ضعیف ۱۰. نسبتا قوی و یا نسبتا زیاد ۱۱. قوی و یا زیاد ۱۲. تقریبا غیرقابل تحمل، غیرقابل تحمل و حداکثری
۱۳	آیا تجربه زودرنجی و یا زودجوشی داشته‌اید؟	☐	☐	
۱۴	آیا احساس افسردگی داشته‌اید؟	☐	☐	
۱۵	آیا احساس استرس داشته‌اید؟	☐	☐	
۱۶	آیا تجربه حالت تهوع یا استفراغ داشته‌اید؟	☐	☐	
۱۷	آیا تجربه حساس شدن به نور داشته‌اید؟	☐	☐	
۱۸	آیا تجربه حساس شدن به صدا داشته‌اید؟	☐	☐	
۱۹	آیا تجربه اختلال توجه و تمرکز داشته‌اید؟	☐	☐	
۲۰	آیا تجربه اختلال بلع یا فرو بردن غذا داشته‌اید؟	☐	☐	
۲۱	آیا تجربه اختلال تنفس داشته‌اید؟	☐	☐	
۲۲	آیا احساس اضطراب و دلشوره داشته‌اید؟	☐	☐	
۲۳	آیا تجربه گردن درد در هنگام فعالیت داشته‌اید؟	☐	☐	
۲۴	آیا تجربه گردن درد در هنگام استراحت داشته‌اید؟	☐	☐	
۲۵	آیا گردن درد روی خواب شما تاثیر گذاشته است؟	☐	☐	
۲۶	آیا گردن درد روی حالات خلقی و روانی شما تاثیر گذاشته است؟	☐	☐	
۲۷	آیا به دلیل مشکلات گردن، از گردنبند طبی یا وسیله کمکی استفاده کرده‌اید؟	☐	☐	

	پرسشنامه ارزیابی نیمرخ آمادگی عملکردی ناحیه گردن		
	با توجه به راهنمای سمت چپ در ستون مربوط اعداد ۱ تا ۶ را وارد نمایید. سوالات بخش دوم :مقیاس محدودیت عملکردی	نحوه عملکرد (۱ تا ۶)	
۱	با وجود گردن درد چگونه می‌ایستید؟	☐	شیوه‌ی کنترل موارد زیر را بر اساس نمره‌ی۱ تا۶ مشخص کنید
۲	با وجود گردن درد چگونه راه می‌روید؟	☐	
۳	با وجود گردن درد چگونه می‌نشینید؟	☐	
۴	با وجود گردن درد چگونه دراز می‌کشید؟	☐	۱. بسیار خوب، بدون مشکل، بسیار رضایت‌بخش، بسیار خوشایند ۲. خوب، آسان، رضایت‌بخش، خوشایند ۳. نسبتا خوب، نسبتا آسان، نسبتا رضایت‌بخش، نسبتا خوشایند ۴. نسبتا بد، نسبتا سخت، نسبتا ناراضی کننده ۵. بد، سخت، ناراضی کننده، ناخوشایند ۶. بسیار بد، بسیار سخت، غیرممکن، بسیار ناراضی کننده، بسیار ناخوشایند
۵	با وجود گردن درد چگونه می‌دوید؟	☐	
۶	با وجود گردن درد چگونه اجسام را حمل می‌کنید؟	☐	
۷	با وجود گردن درد چگونه اجسام را بلند می‌کنید؟	☐	
۸	با وجود گردن درد چگونه اجسام را پرتاب می‌کنید؟	☐	
۹	با وجود گردن درد چگونه لباس خود را می‌پوشید و درمی‌آوردید؟	☐	
۱۰	با وجود گردن درد چگونه جوراب خود را می‌پوشید و درمی‌آورید؟	☐	
۱۱	با وجود گردن درد چگونه سر خود را به جلو خم می‌کنید؟	☐	
۱۲	با وجود گردن درد چگونه سر خود را به عقب خم می‌کنید؟	☐	
۱۳	با وجود گردن درد چگونه سر خود را به سمت راست خم می‌کنید؟	☐	
۱۴	با وجود گردن درد چگونه سر خود را به سمت چپ خم می‌کنید؟	☐	
۱۵	با وجود گردن درد چگونه سرخود را به سمت راست می‌چرخانید؟	☐	
۱۶	با وجود گردن درد چگونه سر خود را به سمت چپ می‌چرخانید؟	☐	
۱۷	با وجود گردن درد شغلتان را چطور کنترل و مدیریت می‌کنید؟	☐	
۱۸	به وضعیت کلی گردن خود چه نمره‌ای می‌دهید؟	☐	
۱۹	به وضعیت سلامتی عمومی خود چه نمره‌ای می‌دهید؟	☐	
۲۰	درباره‌ی امکان بازگشتن به شغل و حرفه خود چه نظری دارید؟	☐	