Translation, transcultural adaptation, and validation of the Serbian version of the University of Washington Quality of Life (UW-QoL) Questionnaire – a pilot study

Prevod, transkulturalna adaptacija i validacija srpske verzije upitnika *University of Washington Quality of Life* (UW-QoL) *Questionnaire* – pilot studija

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Abstract

Background/Aim. The University of Washington Quality of Life (UW-QoL) questionnaire is one of the most frequently applied instruments for the evaluation of the health-related quality of life of head and neck cancer patients worldwide. The aim of this study was to perform a formal translation of the original version into the Serbian language, assess its psychometric properties, and validate it for use in the Serbian-speaking population. **Methods.** The study was designed as pilot research and conducted between August and October 2023. The internal consistency of the questionnaire was established by calculating Cronbach's alpha coefficient (CA). The intraclass correlation coefficient (ICC) was a measure of temporal stability. The construct validity of the instrument was assessed by correlating its total scores with Oral Health Impact Profile-14 (OHIP-14) and Emotion Regulation Questionnaire results. **Results.** A total of 30 patients (23 males and 7 females) with a mean age of 58.07 ± 13.59 years were enrolled in the research. Mean values of the physical function and social-emotional function subscales were 59.50 ± 12.68 and 55.39 ± 15.26 (the researchers interviewed the participants) and 58.78 ± 12.57 and 57.72 ± 14.91 (the patients completed the questionnaire by themselves). CA value of the Serbian version of the UW-QoL questionnaire was 0.816 (the questionnaire was filled out by the researchers) and 0.802 (the subjects completed it on their own). ICC was 0.797. There was a statistically significant strong correlation between the UW-QoL questionnaire and OHIP-14 total scores. The obtained results showed a weak, non-significant correlation between the UW-QoL questionnaire and the Emotion Regulation Questionnaire. **Conclusion.** Our pilot research showed that the Serbian version of the UW-QoL questionnaire appears as psychometrically valid and reliable as the original English version.

Key words:
head and neck neoplasms; oral health; quality of life; serbia; surveys and questionnaires.

Apstrakt

Uvod/Cilj. Upitnik o kvalitetu života Univerziteta u Vašingtonu (*University of Washington Quality of Life* – UW-QoL) jedan je od najčešće primenjivanih instrumenata za procenu kvaliteta života u vezi sa zdravljem bolesnika sa karcinomom glave i vrata širom sveta. Cilj rada bio je da se izvrši formalni prevod originalne verzije upitnika na srpski jezik, procene njegova psihometrijska svojstva i da se validira za upotrebu u populaciji bolesnika sa srpskog govornog područja. **Metode.** Studija je dizajnirana kao pilot istraživanje i sprovedena je u periodu od avgusta do oktobra 2023. godine. Interna konzistentnost upitnika utvrđena je izračunavanjem Kronbahovog koeficijenta alfa (KK). Unutarklasni koeficijent korelacije (UKK) bio je mera vremenske stabilnosti upitnika. Konstruktivna validnost instrumenta procenjena je korelacijom njegovih ukupnih rezultata sa rezultatima srpske verzije upitnika *Oral Health Impact Profile-14* (OHIP-14) i upitnika emocionalne regulacije. **Rezultati.** U istraživanje je bilo uključeno ukupno 30 bolesnika (23 muškarca i 7 žena) prosečne starosti od $58,07 \pm 13,59$ godina. Srednje vrednosti fizičke i socijalno-emocionalne skale bile su $59,50 \pm 12,68$ i $55,39 \pm 15,26$ (kada su učesnike intervjuisali istraživači) i $58,78 \pm 12,57$ i $57,72 \pm 14,91$ (kada su sami bolesnici popunjavali upitnik). Vrednost KK za srpsku verziju upitnika UW-QoL bila je 0,816 (kada su upitnik popunjavali istraživači) i 0,802 (kada su upitnik popunjavali sami ispitanici). Vrednost UKK bila je 0,797. Postojala je statistički značajna jaka korelacija

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između rezultata upitnika UW-QoL i OHIP-14. Dobijeni rezultati pokazali su slabu korelaciju između upitnika UW-QoL i upitnika emocionalne regulacije. **Zaključak.** Naše pilot istraživanje pokazalo je da je srpska verzija upitnika UW-QoL psihometrijski validna i pouzdana kao i originalna verzija na engleskom jeziku.

Ključne reči:
glava i vrat, neoplazme; usta, zdravlje; kvalitet života; srbija; ankete i upitnici.

Introduction

Head and neck cancer (HNC) is a heterogeneous group of cancers that accounts for more than 550,000 cases and 380,000 deaths annually worldwide [1]. Patients undergoing treatments for HNC are at high risk of developing various devastating problems with a substantial impact on their physical and emotional quality of life (QoL) [2]. Radiotherapy represents one of the most important treatment options for HNC, either as a single modality or combined with surgery and/or chemotherapy [3]. Mucositis, an inflammation of oral and oropharyngeal mucosa, and candidiasis are among the earliest post-radiation complications. Late toxic reactions to radiotherapy include osteoradionecrosis, xerostomia, and subcutaneous fibrosis [4]. Some of the most common symptoms related to HNC are chronic pain, sensory impairment, and difficulties with swallowing, speaking, and breathing [5]. Anxiety, depression, and fatigue are also frequently associated with HNC [6]. It is estimated that the prevalence of depressive symptoms after radiotherapy in HNC patients is between 29% and 42% [6]. In addition, a high level of post-traumatic stress has been noted in HNC survivors [7]. Not only do the patients with HNC face a potentially life-threatening disease, but they also have to deal with the impact of treatment modalities on all aspects of their QoL [2].

Health-related QoL (HRQoL) is a multi-dimensional concept that represents a significant patient-reported outcome in HNC, where overall survival rates are at approximately 50% [8]. Fourteen disease-specific HRQoL instruments have been developed so far for HNC patients, including the European Organization for Research into Treatment of Cancer Quality of Life Questionnaire & Head and Neck Cancer-specific module (EORTC QLQ-C30 & HN35), the Functional Assessment of Cancer Therapy Head and Neck Scale (FACT-HNS), and the University of Washington Quality of Life (UW-QoL) Questionnaire [5]. HNC and its treatment modalities can affect well-being and daily functioning so profoundly that it is of utmost importance to take into account the patient's perspective [9]. Moreover, the HRQoL concept is a very valuable tool in the clinical setting as it might become a beneficial asset to treatment planning [5].

The UW-QoL is a brief, simple-to-complete, self-administered instrument specifically designed for HRQoL evaluation of patients diagnosed with HNC. It consists of 12 single-item domains and three global questions. Additionally, the UW-QoL is divided into two subscales – physical function and social-emotional function [10]. The whole questionnaire is focused on the patient's health and well-being in the past seven days.

To date, there is no validated Serbian version of this questionnaire, so our study aims to formally translate, culturally adapt, and assess the psychometric properties of the UW-QoL instrument in the Serbian population.

Methods

The research was designed as a clinical pilot study and conducted at the Clinic for Dentistry of the Military Medical Academy (MMA), Belgrade, Serbia, between August and October 2023. The study was approved by the Ethics Committee of MMA (No. 59/2023). All of the patients signed the written informed consent prior to participation in the study after being given all the necessary information regarding the research protocol. Thirty patients with the diagnosis of HNC, currently undergoing radiotherapy, who came to a scheduled appointment at the Clinic for Dentistry were enrolled in the research. The inclusion criteria were the following: patients with HNC subjected to radiotherapy, aged 18 years or above. The exclusion criteria were the following: age below 18, mental disorders, and patients who were not willing to participate in the study. All patients were invited to fill in the following set of surveys: UW-QoL, Oral Health Impact Profile (OHIP-14), and Emotion Regulation Questionnaire (ERQ). After attaining socio-demographic characteristics and the aforementioned questionnaires, the patients were swabbed on the *Candida albicans spp.* for future research (the 14th day since the first radiotherapy round).

HRQoL of patients with HNC undergoing radiotherapy was assessed using the Serbian version of the UW-QoL questionnaire, which was formally translated, adapted, and validated in this paper. Translation and cultural adaptation of the UW-QoL instrument were performed following the standard translation/back-translation protocol, according to internationally accepted guidelines [11]. The original version of the instrument was first translated into Serbian by two independent authors of this paper, native in Serbian and fluent in English. After this process was completed, the two translations were combined in a single forward version with minor wording changes. The questionnaire was then back-translated into English by a proficient English speaker, fluent in Serbian, who had not been previously familiar with the original instrument. The back-translation was compared with the original, and the authors of the article agreed on the final Serbian version of the instrument. Characteristics of the original and the Serbian version of the UW-QoL questionnaire are given in the *Appendix*.

Two different modes of questionnaire completion were tested – first, the questionnaires were filled in by the researchers questioning the participants, after which they com-

pleted all the surveys by themselves. In 14 days, study subjects completed the UW-QoL instrument once again so the temporal stability of the questionnaire could be evaluated.

The UW-QoL questionnaire is a self-administered instrument designed specifically for HRQoL evaluation of patients diagnosed with HNC [12]. It contains 12 single-item domains (pain, appearance, activity, recreation, swallowing, chewing, speech, shoulder, taste, saliva, mood, and anxiety), assessed by multiple-choice questions scored from 0 (worst QoL) to 100 (best QoL). This questionnaire also includes three global questions [13]. The first one is about participants' HRQoL compared with the period one month before the cancer diagnosis, scored on a 5-point Likert scale (much better, somewhat better, about the same, somewhat worse, much worse). The other two are associated with patients' health-related and overall QoL in the last seven days. In addition, participants were asked to choose the three most significant domains of their HRQoL in the past week. At the end of the UW-QoL instrument, patients may offer open-ended comments about certain issues not covered by the questionnaire [14].

The OHIP-14 is a self-reported 14-item instrument that is divided into seven domains: functional limitation, pain, psychological discomfort, physical disability, psychological disability, social disability, and handicap. It is designed to determine the effect of oral health on the overall QoL aspects. Items can be evaluated on a 5-point Likert scale (never = 0, hardly ever = 1, occasionally = 2, fairly often = 3, and very often = 4). The total score is calculated by summing the values of all 14 questions. The higher results indicate a negative impact of oral health on overall health and well-being [15].

ERQ is a scale that consists of 10 questions. It is designed to evaluate individual differences in emotion regulation using two frequent strategies: cognitive reappraisal and emotion suppression. Questions are measured on a 7-point Likert scale (from 1 – strongly disagree to 7 – strongly agree). The cognitive reappraisal includes questions 1, 3, 5, 7, 8, and 10, while items 2, 4, 6, and 9 belong to the emotion suppression subscale. An individual result is obtained for each of the domains. The higher scores represent the more dominant use of that particular emotion regulation strategy [16].

Statistical analysis

Statistical data processing was conducted in the SPSS statistical program, version 22. The response rate, percentage of missing data, and average time for completing the questionnaire were used as measures of the questionnaire's feasibility. The reliability of the instrument was tested in three ways. First, the internal consistency (IC) was determined by calculating Cronbach's alpha coefficient (CA) for the whole questionnaire. IC was deemed satisfactory if the CA was 0.7 or higher [11]. After that, the instrument was divided into two halves by the split-half method, and the Spearman-Brown coefficient was calculated using the "prediction" formula [17]. The temporal stability of the questionnaire was assessed by measuring the intraclass correlation coefficient (ICC). Values of ICC greater than 0.7 indicated satisfactory test-retest reliability [11]. The construct validity of the instrument was established by the correlation of its total scores with the patients' OHIP-14 (convergent validity – the degree to which various assessment tools, theoretically designed to gauge the same underlying construct, indeed produce comparable or closely correlated outcomes) and ERQ (divergent validity – assesses the extent to which measurements of different constructs are distinct and do not correlate strongly with each other) results, implementing Spearman's rank correlation. A p-value < 0.05 was considered a measure of statistical significance for all statistical tests.

Results

The English version of the UW-QoL questionnaire was successfully translated and adapted to the Serbian language without any difficulties regarding linguistic and cultural differences.

Thirty HNC patients with an average age of 58.07 ± 13.59 years were included in this pilot study. Their sociodemographic characteristics are presented in Table 1.

Table 1

Socio-demographic characteristics of the study subjects

Variable	Values
Gender	
male	23 (76.70)
female	7 (23.30)
Employment status	
employed	17 (56.67)
unemployed	1 (3.33)
retired	12 (40.00)
Smoking	
no	14 (46.70)
yes	16 (53.30)
Treatment modality	
surgery and radiotherapy	12 (40.00)
radiotherapy and chemotherapy	2 (6.70)
surgery, radiotherapy, and chemotherapy	16 (53.30)
Candidiasis	
no	12 (40.00)
yes	18 (60.00)

All values are expressed as numbers (percentages).

Mean values of the physical function and social-emotional function subscales were 59.50 ± 12.68 and 55.39 ± 15.26 when the researchers interviewed the participants and 58.78 ± 12.57 and 57.72 ± 14.91 when the patients completed the questionnaire by themselves. Two weeks after the initial testing, the recorded results of the physical function and social-emotional function domains were 51.33 ± 11.48 and 53.42 ± 11.31, respectively. The UW-QoL average domain scores are shown in Table 2.

Table 3 represents which three domain issues were the most significant to the patients in the past seven days. The mean values of the general questions were 39.14, 47.33, and 47.33 when researchers questioned the subjects and 38.33, 50.33, and 50.67 when the participants completed the questionnaire by themselves. After two weeks, the average values of the three general questions were as follows: 39.17, 48.00, and 47.33.

Mean OHIP-14 and ERQ values were 28.20 ± 8.00 and 52.60 ± 6.69 when the investigators interviewed the patients and 28.20 ± 8.29 and 52.63 ± 5.44 when the patients completed the surveys on their own.

The response rate of the questionnaire was 100%, and there were no missing data, so the feasibility of the questionnaire was considered satisfactory. The average time measured for completing the questionnaire was 7.41 min (ranging between 5.46 and 9.27 min) when the researchers were questioning the subjects and 6.25 min (ranging from 3.25 to 9.03 min) when the participants did it on their own, indicating minimal patient burden. In general, patients had no difficulties understanding the questions and felt like the domains of the instrument adequately addressed different aspects of their disease when asked by researchers after the questionnaire completion.

Analysis of IC revealed excellent reliability of the Serbian version of the UW-QoL instrument (CA = 0.816 when the questionnaire was filled by the researchers; CA = 0.802 when the participants did it by themselves). The Spearman-Brown coefficient was calculated after dividing the questionnaire into two parts by the split-half method. The obtained values were 0.722 (researchers interviewed the subjects) and 0.871 (patients completed the questionnaire). Since the Spearman-Brown coefficient remained above 0.7 after implementing the split-half method, the satisfactory reliability of the Serbian version of the UW-QoL instrument was confirmed. ICC, a measure of temporal stability, was 0.797 [95% confidence interval (CI): 0.573–0.903], which demonstrated a satisfactory test-retest reliability of the questionnaire.

Table 2

The UW-QoL questionnaire's average domain scores

Parameter	UW-QoL	
	rated by researchers	rated by patients
Pain	61.67 ± 17.04	65.83 ± 24.11
Appearance	58.33 ± 18.95	56.67 ± 19.62
Activity	55.83 ± 15.65	59.17 ± 16.72
Recreation	54.17 ± 16.19	54.17 ± 16.19
Swallowing	57.33 ± 22.43	56.33 ± 21.09
Chewing	53.33 ± 18.26	53.33 ± 18.26
Speech	68.33 ± 23.94	66.67 ± 20.40
Shoulder	69.67 ± 25.80	71.00 ± 24.69
Taste	55.00 ± 24.60	56.67 ± 22.64
Saliva	64.47 ± 21.93	63.00 ± 24.52
Mood	46.47 ± 24.33	49.17 ± 21.26
Anxiety	47.00 ± 29.79	47.00 ± 27.69

UW-QoL – University of Washington Quality of Life.
All values are expressed as mean ± standard deviation.

Table 3

Domain-importance rating

Parameter	Rated by researchers	Rated by patients	Rank order
Pain	0 (0.00)	0 (0.00)	12
Appearance	6 (20.00)	4 (13.33)	8
Activity	5 (16.67)	4 (13.33)	9
Recreation	2 (6.67)	1 (3.33)	11
Swallowing	17 (56.67)	17 (56.67)	1
Chewing	8 (26.67)	8 (26.67)	5
Speech	5 (16.67)	6 (20.00)	7
Shoulder	4 (13.33)	4 (13.33)	10
Saliva	9 (30.00)	10 (33.33)	4
Taste	6 (20.00)	7 (23.33)	6
Mood	16 (53.33)	16 (53.33)	2
Anxiety	12 (40.00)	13 (43.33)	3

All values are expressed as numbers (percentages).

The correlation of the UW-QoL and OHIP-14 scales (when they were rated by researchers and subjects themselves) was assessed to determine the convergent validity of the Serbian version of the UW-QoL questionnaire. There was a statistically significant strong correlation between the total scores of both subscales of UW-QoL and OHIP-14. The relationship between UW-QoL and ERQ (when the instruments were completed by researchers and participants themselves) was established to test divergent validity. The obtained results showed a weak, non-significant correlation between these two questionnaires.

Spearman's correlation coefficients are shown in the multitrait-multimethod matrix (Table 4).

Table 4

Multitrait-multimethod correlation matrix

Parameter	UW-QoL PF (R)	UW-QoL SEF (R)	UW-QoL PF (P)	UW-QoL SEF (P)	UW-QoL PF retest	UW-QoL SEF retest	OHIP-14 (R)	OHIP-14 (P)	ERQ (R)	ERQ (P)
UW-QoL PF (R)	1	0.632**	0.811**	0.696**	0.233	0.394*	-0.664**	-0.724**	0.068	0.095
UW-QoL SEF (R)	0.632**	1	0.407*	0.923**	0.488**	0.687**	-0.626**	-0.668**	0.094	0.110
UW-QoL PF (P)	0.811**	0.407*	1	0.565**	0.055	0.166	-0.647**	-0.692**	0.141	0.151
UW-QoL SEF (P)	0.696**	0.923**	0.565**	1	0.523**	0.687**	-0.747**	-0.790**	0.022	0.068
UW-QoL PF retest	0.233	0.488**	0.055	0.523**	1	0.905**	-0.256	-0.228	-0.152	-0.097
UW-QoL SEF retest	0.394*	0.687**	0.166	0.687**	0.905**	1	-0.418*	-0.400*	-0.113	-0.064
OHIP-14 (R)	-0.664**	-0.626**	-0.647**	-0.747**	-0.256	-0.418*	1	0.971**	-0.092	-0.123
OHIP-14 (P)	-0.724**	-0.668**	-0.692**	-0.790**	-0.228	-0.400*	0.971**	1	-0.020	-0.053
ERQ (R)	0.068	0.094	0.141	0.022	-0.152	-0.113	-0.092	-0.020	1	0.953**
ERQ (P)	0.095	0.110	0.151	0.068	-0.097	-0.064	-0.123	-0.053	0.953**	1

UW-QoL – University of Washington Quality of Life; PF – physical function; SEF – social-emotional function; OHIP-14 – Oral Health Impact Profile-14; ERQ – Emotional Regulation Questionnaire; R – rated by researchers; P – rated by patients. * $p < 0.05$; ** $p < 0.001$.

Discussion

HRQoL assessment of HNC patients has evolved into a major necessity in the past two decades as this group of diseases and their treatment modalities significantly affect all aspects of daily lives and functioning [5]. Most HRQoL instruments have been developed in English, so to use them in other languages and cultures, they first need to be formally translated and validated [18].

The main aim of this research was to translate, culturally adapt, and test the psychometric characteristics of the UW-QoL questionnaire.

We measured the time participants needed to complete the Serbian version of the UW-QoL questionnaire to illustrate its ease of use. Considering that the required period is less than 10 min both when researchers interviewed the patients and when they completed it themselves, it can be concluded that the UW-QoL questionnaire is among the most practical instruments for HRQoL evaluation in HNC patients, as confirmed in other studies [5].

Analysis of the questionnaire's IC revealed a good value of the CA, similar to those calculated by Adnane et al. [18] (0.83), Nazar et al. [5] (0.84), and Linardoutsos et al. [19] (0.83). The temporal stability of the questionnaire was also satisfactory, as confirmed in previous articles [18–21]. The results of our pilot research are consistent with those obtained in similar studies, indicating that the Serbian version of the UW-QoL questionnaire is a reliable HRQoL instrument for HNC patients.

To determine convergent validity, we assessed the correlation between UW-QoL and OHIP-14 scores. OHIP-14 is one of the most widespread instruments that measure the impact of oral health problems on general health and well-being [15]. Seeing that various domains of UW-QoL (swallowing, chewing, speech, taste, and saliva) are affected by HNC and its treatment modalities, we found a statistically significant strong correlation between these two questionnaires.

The use of UW-QoL in routine clinical practice might provide numerous benefits as it can help clinicians gain valuable insights into patients' perspectives regarding their health. Given that our research has identified the main impacted domains of the questionnaire (swallowing, mood, and anxiety), treatment strategies should prioritize these aspects.

This present study has some limitations. One of them is a small sample size, which consisted of patients from only one tertiary institution. Our goal is to conduct research that will encompass a large number of participants with various HNC types, cancer stages, and treatment modalities in the future to test UW-QoL properties in those circumstances. Furthermore, we did not compare the UW-QoL to other disease-specific HRQoL instruments for HNC patients, such as EORTC QLQ-C30 & HN35 and FACT-HNS scales, as we wanted to avoid burdening our study subjects with extensive questionnaires. Another limitation of our study is that it focused exclusively on patients who underwent radiation therapy as their treatment approach, and the research was carried out concurrently with radiotherapy. In our forthcoming research, we aim to assess QoL in these patients who received different treatment modalities and also after the completion of their therapy.

Conclusion

Our pilot research showed that the Serbian version of the UW-QoL instrument possesses adequate feasibility, reliability, and validity and appears as psychometrically valid and reliable as the original English version. Thus, a Serbian adaptation of the UW-QoL instrument may be applied as a valuable tool for HRQoL assessment of patients with HNC, not only for research purposes but also in routine practice. Still, novel clinical studies that will include a greater number of patients are necessary to further confirm its psychometric properties in the Serbian population.

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Appendix

The original University of Washington Quality of Life Questionnaire
(UW-QoL)

This questionnaire asks about your health and quality of life over the past **seven days**. Please answer all of the questions by checking one box for each question.

1.　　Pain. (Check one box: ☐)

☐　　I have no pain.
☐　　There is mild pain not needing medication.
☐　　I have moderate pain - requires regular medication (codeine or nonnarcotic).
☐　　I have severe pain controlled only by narcotics.
☐　　I have severe pain, not controlled by medication.

2.　　Appearance. (Check one box: ☐)

☐　　There is no change in my appearance.
☐　　The change in my appearance is minor.
☐　　My appearance bothers me but I remain active.
☐　　I feel significantly disfigured and limit my activities due to my appearance.
☐　　I cannot be with people due to my appearance.

3.　　Activity. (Check one box: ☐)

☐　　I am as active as I have ever been.
☐　　There are times when I can't keep up my old pace, but not often.
☐　　I am often tired and have slowed down my activities although I still get out.
☐　　I don't go out because I don't have the strength.
☐　　I am usually in bed or chair and don't leave home.

4.　　Recreation. (Check one box: ☐)

☐　　There are no limitations to recreation at home or away from home.
☐　　There are a few things I can't do but I still get out and enjoy life.
☐　　There are many times when I wish I could get out more, but I'm not up to it.
☐　　There are severe limitations to what I can do, mostly I stay at home and watch TV.
☐　　I can't do anything enjoyable.

5.　　Swallowing. (Check one box: ☐)

☐　　I can swallow as well as ever.
☐　　I cannot swallow certain solid foods.
☐　　I can only swallow liquid food.
☐　　I cannot swallow because it "goes down the wrong way" and chokes me.

6.　　Chewing. (Check one box: ☐)

☐　　I can chew as well as ever.
☐　　I can eat soft solids but cannot chew some foods.
☐　　I cannot even chew soft solids.

7.　　Speech. (Check one box: ☐)

☐　　My speech is the same as always.
☐　　I have difficulty saying some words but I can be understood over the phone.
☐　　Only my family and friends can understand me.
☐　　I cannot be understood.

8.   **Shoulder.** (Check one box: ☐)

☐   I have no problem with my shoulder.
☐   My shoulder is stiff but it has not affected my activity or strength.
☐   Pain or weakness in my shoulder has caused me to change my work.
☐   I cannot work due to problems with my shoulder.

9.   **Taste.** (Check one box: ☐)

☐   I can taste food normally.
☐   I can taste most foods normally.
☐   I can taste some foods.
☐   I cannot taste any foods.

10.   **Saliva.** (Check one box: ☐)

☐   My saliva is of normal consistency.
☐   I have less saliva than normal, but it is enough.
☐   I have too little saliva.
☐   I have no saliva.

11.   **Mood.** (Check one box: ☐)

☐   My mood is excellent and unaffected by my cancer.
☐   My mood is generally good and only occasionally affected by my cancer.
☐   I am neither in a good mood nor depressed about my cancer.
☐   I am somewhat depressed about my cancer.
☐   I am extremely depressed about my cancer.

12.   **Anxiety.** (Check one box: ☐)

☐   I am not anxious about my cancer.
☐   I am a little anxious about my cancer.
☐   I am anxious about my cancer.
☐   I am very anxious about my cancer.

Which issues have been the most important to you during the past 7 days?
Check ☐ up to 3 boxes.

☐ Pain   ☐ Swallowing   ☐ Taste
☐ Appearance   ☐ Chewing   ☐ Saliva
☐ Activity   ☐ Speech   ☐ Mood
☐ Recreation   ☐ Shoulder   ☐ Anxiety

GENERAL QUESTIONS

Compared to the month before you developed cancer, how would you rate your health-related quality of life? (check one box: ☐)

☐   Much better
☐   Somewhat better
☐   About the same
☐   Somewhat worse
☐   Much worse

In general, would you say your **health-related quality of life** during the past 7 days has been: (check one box: ☐)

☐   Outstanding
☐   Very good
☐   Good
☐   Fair
☐   Poor
☐   Very poor

Overall quality of life includes not only physical and mental health, but also many other factors, such as family, friends, spirituality, or personal leisure activities that are important to your enjoyment of life. Considering everything in your life that contributes to your personal well-being, rate your **overall quality of life** <u>during the past 7 days</u>. (check one box: ☐)

☐ **Outstanding**
☐ **Very good**
☐ **Good**
☐ **Fair**
☐ **Poor**
☐ **Very poor**

Please describe any other issues (medical or nonmedical) that are important to your quality of life and have not been adequately addressed by our questions (you may attach additional sheets if needed).

Serbian version of the University of Washington Quality of Life Questionnaire (UW-QoL)

Upitnik sadrži pitanja o Vašem zdravlju i kvalitetu života u proteklih **sedam dana**. Odgovorite na sva pitanja tako što ćete označiti jedno polje za svako pitanje.

1. **Bol.** (Označite jedno polje: ☐)

☐ Nemam bol.
☐ Postoji blagi bol koji ne zahteva upotrebu lekova.
☐ Imam umereni bol koji zahteva upotrebu lekova (analgetika).
☐ Imam jak bol koji zahteva upotrebu lekova (trodona/narkotika).
☐ Imam jak bol koji ne prolazi na upotrebu lekova.

2. **Fizički izgled.** (Označite jedno polje: ☐)

☐ Nema promena u mom fizičkom izgledu.
☐ Postoje male promene u mom fizičkom izgledu.
☐ Smeta mi fizički izgled, ali sam aktivan.
☐ Osećam da mi je značajno ugrožen fizički izgled i ne mogu da sprovodim sve aktivnosti zbog toga.
☐ Ne mogu da budem sa ljudima zbog svog fizičkog izgleda.

3. **Fizička aktivnost.** (Označite jedno polje: ☐)

☐ Fizički sam aktivan kao što sam i ranije bio.
☐ Postoje trenuci kada ne mogu da održim svoj stari tempo, ali ne često.
☐ Često sam umoran i smanjio sam svoje aktivnosti i dalje sam fizički aktivan.
☐ Nisam fizički aktivan jer nemam snage.
☐ Obično sam u krevetu ili stolici i ne izlazim iz kuće.

4. **Rekreacija.** (Označite jedno polje: ☐)

☐ Ne postoje ograničenja za rekreaciju kod kuće ili van kuće.
☐ Postoji nekoliko stvari koje ne mogu da uradim, ali ipak izlazim i uživam u životu.
☐ Mnogo puta bih voleo da mogu da izlazim više, ali ne mogu.
☐ Postoje ozbiljna ograničenja za ono što mogu da radim, uglavnom ostajem kod kuće i gledam TV.
☐ Ne mogu da radim ništa sa uživanjem.

5. **Gutanje.** (Označite jedno polje: ☐)

☐ Mogu da gutam kao što sam i ranije.
☐ Ne mogu da progutam određenu čvrstu hranu.
☐ Mogu samo da gutam tečnu hranu.
☐ Ne mogu da progutam jer „ide pogrešnim putem" i guši me.

6. **Žvakanje.** (Označite jedno polje: ☐)

☐ Mogu da žvaćem kao što sam i ranije.
☐ Mogu da jedem mekšu čvrstu hranu, ali ne mogu da sažvaćem neke od namirnica.
☐ Ne mogu čak da žvaćem ni meku hranu.

7. **Govor.** (Označite jedno polje: ☐)

☐ Moj govor je isti kao i uvek.
☐ Imam poteškoća da izgovorim neke reči, ali se mogu razumeti.
☐ Samo moja porodica i prijatelji mogu da me razumeju.
☐ Ne mogu me razumeti.

8. **Rame.** (Označite jedno polje: ☐)

☐ Nemam problema sa ramenom.
☐ Moje rame je ukočeno, ali to ne utice na moju aktivnost ili snagu.
☐ Bol ili slabost u ramenu doveli su do toga da promenim svoj posao.
☐ Ne mogu da radim zbog problema sa ramenom.

9. **Ukus.** (Označite jedno polje: ☐)

☐ Osećam sve ukuse.
☐ Osećam skoro sve ukuse.
☐ Osećam samo neke ukuse.
☐ Ne osećam ukus hrane.

10. **Pljuvačka.** (Označite jedno polje: ☐)

☐ Moja pljuvačka je normalne konzistencije.
☐ Imam manje pljuvačke nego inače, ali dovoljno je.
☐ Imam premalo pljuvačke.
☐ Nemam pljuvačke.

11. **Raspoloženje.** (Označite jedno polje: ☐)

☐ Moje raspoloženje je odlično i na njega karcinom ne utiče.
☐ Moje raspoloženje je generalno dobro, samo povremeno na njega utiče karcinom.
☐ Nisam ni raspoložen ni depresivan zbog svog karcinoma.
☐ Pomalo sam depresivan zbog svog karcinoma.
☐ Izuzetno sam depresivan zbog svog karcinoma.

12. **Anksioznost.** (Označite jedno polje: ☐)

☐ Nisam zabrinut zbog svog karcinoma.
☐ Malo sam zabrinut zbog svog karcinoma.
☐ Zabrinut sam zbog svog karcinoma.
☐ Veoma sam zabrinut zbog svog karcinoma.

Koja pitanja su Vam bila najvažnija u proteklih 7 dana?
Označite ☐ do 3 polja.

☐ Bol	☐ Gutanje	☐ Ukus
☐ Fizički izgled	☐ Žvakanje	☐ Pljuvačka
☐ Fizička aktivnost	☐ Govor	☐ Raspoloženje
☐ Rekreacija	☐ Rame	☐ Anksioznost

OPŠTA PITANJA

U poređenju sa mesecom pre nego što vam je dijagnostikovan karcinom, kako biste ocenili kvalitet svog života u vezi sa zdravljem? (označite jedno polje: ☐)

☐ Mnogo bolje
☐ Nešto bolje
☐ Otprilike isto
☐ Nešto gore
☐ Mnogo gore

Uopšteno govoreći, da li biste rekli da je Vaš **kvalitet života u vezi sa zdravljem** <u>tokom proteklih 7</u> dana bio: (označite jedno polje: ☐)

☐   Odlično
☐   Vrlo dobro
☐   Dobro
☐   Manje dobro
☐   Loše
☐   Veoma loše

Ukupan kvalitet života uključuje ne samo fizičko i mentalno zdravlje, već i mnoge druge faktore, kao što su porodica, prijatelji, duhovnost ili lične aktivnosti u slobodno vreme. Uzimajući u obzir sve u Vašem životu što doprinosi Vašem ličnom blagostanju, ocenite svoj **ukupni kvalitet života** <u>tokom poslednjih 7 dana</u>. (označite jedno polje: ☐)

☐   Odlično
☐   Vrlo dobro
☐   Dobro
☐   Manje dobro
☐   Loše
☐   Veoma loše

_____

Molimo Vas da opišete sva druga pitanja (medicinska ili nemedicinska) koja su važna za Vaš kvalitet života i koja nisu adekvatno obrađena u našim pitanjima (možete priložiti dodatne listove ako je potrebno).