

**Qualitative Description of Experiences of Dealing with
Temporomandibular Joint Disorder Symptoms in Yerevan, Armenia**

Master of Public Health Integrating Experience Project

Professional Publication Framework

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Abbreviations and Definitions

AUA	American University of Armenia
IDI	In-depth Interview
IRB	Institutional Review Board
FG	Focus Group
MFS	Maxillofacial Surgeon
GDP	General Dental Practitioner
TMD	Temporomandibular Joint Disorder
TMJ	Temporomandibular Joint
US	United States
QoL	Quality of Life

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Abstract

Background: Temporomandibular joint disorders (TMDs) from which TMD symptoms arise, represent a group of commonly occurring but poorly defined pathologies. Pain and other symptoms engender a range of disabilities for those experiencing the underlying disorders including social limitations, absence from work, and reduced quality of life. Diagnosing and treating these disorders and alleviating symptoms are widely debated within dentistry. Importantly, experience and impact of symptoms is poorly described across diverse populations around the world. Similarly, the perceptions of dentists about symptom experience and the influence of diagnosis and treatment are generally not well described.

Aim: To qualitatively describe experiences of TMD symptoms among residents of Yerevan, Armenia from the perspectives of individuals with symptoms and dentists.

Methods: A qualitative cross-sectional design using conventional content analysis is employed to address the aim of this project. Participants were screened using Fonseca's TMD screening tool. Those screening positive for any cluster of symptoms and level of TMD severity were invited to participate in focus group discussions. Focus groups (FGs) are used to build confidence among participants who may find that shared experiences of TMD symptoms validate their own perspectives, encouraging them to speak more freely than they would in individual interviews. Dentists were invited to participate in in-depth interviews (IDIs). In the case of dentists, in contrast to individuals with TMD symptoms, individual interviews limit dentists' influence on each other and the chance of practitioners who are less confident in their practice with these patients being swayed by colleagues. Total number of participants was 17 including eight dental providers and nine participants with TMD symptoms. All participants were assured of confidentiality and anonymity with ethical oversight from the American University of Armenia IRB providing review and approval. All data were transcribed and translated into English on collection and before any analysis. All data were secured in password protected and locked files. Data analysis, using two levels of coding, identification and categorization, commenced with data collection and progressed iteratively until redundancy was achieved in main categories.

Results/Conclusion: Our participants told about experiencing a range of TMD symptoms, which impaired their oral function, affected their mood and resulted in distress associated with the presence of unpleasant symptoms. Despite the presence of unpleasant TMD symptoms participants tried to disregard and manage those alone, without any guidance from a dental provider. Aggravation of symptoms, such as pain in the Temporomandibular joint (TMJ) area or limited mouth opening, encouraged our participants to seek professional care. Nonetheless, professional care was not always helpful. The narratives of our participants suggest that while seeking professional management for their TMD symptoms they come across with indifference from the side of dental providers or were recommended ineffective procedures, such as third molar extraction, not alleviating their TMD symptoms.

Introduction

Problem Statement

TMDs are the second most common musculoskeletal disability, after chronic low back pain.¹ TMDs are associated with other chronic conditions including tension and migraine headaches as well as with bruxism and depression.² Although frequently assumed, the etiology of TMDs is thought to be unknowable and not verified, therefore, the underlying disorders, in most cases, are classified on the basis of the symptoms presented.³ While there are critics who disagree with the approach that a symptom or a cluster of symptoms can be a diagnosis, the American Academy of Orofacial Pain and the International Headache Society developed criteria of what constitutes the TMDs: pain in the muscles or the TMJ, limited range of motion, clicking or crepitus in the joint.⁴ The morbidity associated with TMD symptoms, diagnosis, and treatment of these disorders is very controversial and lacks substantive evidence for clinical care.⁵ TMDs profoundly influence function and activity in daily life including eating, speaking in social and work relationships^{6,7}

Background

Epidemiology

Epidemiologic studies report wide-ranging variation in the rate of prevalence of TMD signs and symptoms in different populations. The use of different methods, measurement instruments and diagnostic criteria to define TMDs and collect information is a possible explanation for disparities in incidence and prevalence.^{8,9,10,11,12} For example, Gatchel and colleagues report that 75% of Americans experience symptoms of TMD at some point in their lifetime with 5 to 10% of them develop severe enough symptoms to require treatment.¹³ Perhaps 15% of these individuals go on to develop chronic TMD with persistent pain, behavioral, psychological, and psychosocial symptoms.¹ The female-to-male ratio of patients

seeking care ranges from 3:1 to 9:1.¹⁴ Women and men also seem to differ in perception, expression, and tolerance of pain and other symptoms.¹⁵

Clinical Definition

TMDs symptoms result in limited function and social disability for many people around the world. TMDs are one of the four subgroups of chronic orofacial pain problems, defined as pain in the face, mouth, or jaws that has been present for a day or longer in the past month, and that has been present for 3 months or longer.¹⁶ TMD represents a heterogeneous group of pathologies involving the TMJ, masticatory muscles, or both, and have some symptoms in common such as pain, restricted movement and limited mouth opening, muscle tenderness and clicking jaw joints.^{17,18}

Significance

Economic and Societal Burden

TMDs create significant associated social and economic burden. In the United States (US) TMDs are estimated to account for approximately 18 million lost workdays for every 100 million working adults each year.¹⁹ TMD treatment is similarly burdensome. Several sources mention different estimates for annual treatment cost and direct TMD care spent in the United States. Those vary between approximately \$2 to \$4 billion despite lack of well-established evidence based guidelines.^{1,20} Moreover the bulk of these costs are attributed to treating a small proportion of patients with persistent pain and dysfunction.¹⁹

Daily Experience of Symptoms and Functional Limitations

Chronic symptoms of TMDs prompt many to seek care from dentists and other clinicians. However, many people find their desires for care and needs for symptom relief are

too often unfilled. Storm and colleagues reported trust between patient and clinician was highly damaged as a result of not being believed and being questioned about symptom experience.²¹ Experiences of this kind often alter patient confidence, motivation, and adherence.²¹

Quality of Life

As an important outcome measure in treatment of TMDs, several authors discussed quality of life (QoL) in terms of patients' social interactions, experiences of everyday life and other aspects of life.^{22,23} In his review paper Allen compared the baseline QoL scores of TMD patients against a group of cardiac disorder patients in a study measuring the impact of oral conditions, specifically TMDs, on patients' QoL.²³ Allen reported that TMD patients were disabled to a greater extent in the areas of social interactions, communication, intellectual functioning, sleep and rest than those with cardiac disease.²³ Nilsson and colleagues investigating the impact of TMDs on everyday lives of teens, found that adolescents with TMD pain had impaired social and emotional function, which were altered as the teens were either experiencing pain or thinking about it in pain-free periods.²⁴ Meanwhile another qualitative study showed that the absence of TMD diagnosis made patients feel that others may perceive them as a malingerer.²⁵ Thus the symptoms experienced by TMD patients had worsened due to anxiety regarding the nature of their medically unexplained symptoms. On the contrary, having a TMD diagnoses helped them to cope better with their illness.²⁵ Further quantitative studies along with a systematic review strongly suggest that TMD-related symptoms, and in particular pain, have substantial impact on QoL of people.^{26,27}

Rationale for Investigation in Armenia

Most evidence about TMD symptoms and TMD experience is predicated on quantitative research completed in high-income nations. A few studies applied qualitative

approaches to explore experiences of TMD patients and to understand dentists' perspectives on patient experience and functional limitations.^{25,24,21} Consequently, description of TMD symptoms for people living in middle and low-income countries with less access to the known but limited evidence for diagnosis and treatment is missing from the international public health literature. No research completed in Yerevan, Armenia as a low-middle income society documents TMD experience from the perspectives of those with symptoms or the dentists from whom they may seek care. While epidemiological data on TMD symptoms is also lacking in the Armenian context, qualitatively describing experience with sociocultural specificity is the logical antecedent to epidemiological definition. Consequently, this study aims to qualitatively describe experiences of TMD symptoms among residents of Yerevan, Armenia from the perspectives of individuals with symptoms and dentists.

Methodology

Study design

The proposed project employs a qualitative cross sectional design with conventional content analysis to qualitatively describe the experiences of TMD symptoms among dental providers and individuals with TMD symptoms.

Sampling

Convenience sampling was employed to recruit individuals with TMD symptoms and snowball was used to recruit dental practitioners to participate in the study.^{28,29} Snowball technique allowed TMD treating dentists to refer the student investigator to other dentists treating TMD patients. Convenience strategy for recruiting individuals with TMD symptoms and other dental practitioners not known as treating TMDs helped finding study participants in a short period of time.

Recruitment of the Participants

Individuals with TMD symptoms were recruited through posting an announcement on Facebook social network or relatives and acquaintances of colleagues from the American University of Armenia (AUA) by distributing Fonseca's TMD-screening tool³⁰ (**Appendix 6**). Those who scored greater or equal to 20 out of 100 (similar to having mild, moderate or severe TMD) were asked to contact the student investigator and were invited to participate in the interviews.

Recruitment of dentists providing clinical care to TMD patients was through web sources and Association of Orthodontists of Armenia. Following their suggestion we contacted other TMD treating dentists. In order to achieve maximum diversity in experiences and opinions the student investigator contacted dental practitioners of different backgrounds from dental clinics located in Yerevan that were chosen by convenience.

Eligibility

Two groups of participants interested in participating were involved in the study:

- Symptomatic individuals (18 years and above) identified through Fonseca's questionnaire as having mild, moderate or severe TMD.
- Dental practitioners of different backgrounds, both providing clinical care for TMD patients and not providing services for TMD patients.

Ethical Conduct and Protection of Participants

An approval from the Institutional Review Board (IRB) of the AUA was obtained (**Appendix 3**) prior to the commencement of data collection. All participants provided informed oral consent. Audio recording were made with permission of participants. All data were deidentified and original recordings destroyed at the close of the study.

Data Collection

The student investigator conducted in-depth interviews (IDI) with dentists and focus group discussions (FGD) with individuals having mild, moderate or severe TMD symptoms. IDIs can provide rich and in-depth information about personal experiences of study participants, whereas FGDs can empower participants and facilitate the process of sharing their experiences about the phenomenon and help to get a wider range of perspectives and experiences.^{31,32} Therefore, focus groups were used to build confidence among participants who may find shared experiences of TMD symptoms validate their own perspectives, encouraging them to speak more freely. Dentists, in contrast to those with TMD symptoms, were interviewed alone to limit influence and peer pressure. Demographic characteristics were collected from each participant after informed consent and before the interview (**Appendix 7**).

The research team members developed two brief semi-structured interview guides with open ended questions for IDIs and FGs with the target study population (**Appendix 1**). Topics covered in the interview guide included description of TMD symptoms, experiences of living with symptoms, experiences of seeking/providing care for the symptoms from the perspectives of dental practitioners and individuals with TMD symptoms.

Data Management

Audio recordings were transcribed and translated verbatim into English right after the interviews. Audio records and corresponding transcripts were secured in password-protected and locked files. Audio records and notes taken during the interviews were destroyed as soon as transcription was completed.

Data Analysis

Inductive approach to data analysis was applied³³ using a two step process of coding – identification and categorization.³⁴ Concurrent data collection and analysis helped to develop

the emerging description of TMD symptom experience and in turn refine questions asked in IDIs and FGs.³¹ Given the example of previously conducted qualitative studies with similar research questions, approximately 16 to 20 interview participants were necessary to achieve redundancy.^{25,35,36} After interviews with 17 participants redundancy was achieved.

Maintenance of Rigor

In order to maintain rigor, perspectives of those with symptoms and dentists were collected, thus achieving triangulation of study findings.³⁷ Frequent debriefing sessions were conducted with the study team members in order to prevent researcher bias and personal preferences.³⁸

Results

Participants

Eight in-depth interviews were conducted with different kinds of dental providers, including general dental practitioners (GDPs), maxillofacial surgeons (MFSs), an orthodontist and a prosthodontist. Five of dental providers are men and three are women. Nine women between the ages of 23 to 40 with TMD symptoms participated. Demographic characteristics are detailed in **Table 1**. The mean duration of IDIs was approximately 20 minutes and mean duration of FGs was approximately 24 minutes.

Overview of the Categories

Three categories describing TMD symptom experiences emerged during the analysis of our interview transcripts. The following three categories “Not unbearable but unpleasant”, “Cope until my pain gets worse”, and “Ineffective procedure and persistence of symptoms” illustrate the chain of experiences of living with TMD symptoms. This chain demonstrated symptoms experienced by our participants, ways of managing those symptoms, factors

prompting participants to seek care, and problems faced while seeking symptom relief from dental professionals.

Not unbearable but unpleasant

One main category and three sub-categories labeled with in vivo language are best describing life with TMD symptoms. The experience, most broadly, is "not unbearable but unpleasant" with "trying to open my mouth a little bit" describing oral function, "everyone's attention is on me" revealing dimensions of audible symptoms in social situations, and "the perpetual load on my shoulders" defining the distress of TMD symptoms.

1.1 Trying to open my mouth a little bit: This category "Trying to open my mouth just a little bit" conveys the functional impairment caused by symptoms suggestive of a TMD diagnoses. When we asked what disturbs them, our participants mostly described the following complaints: clicking sound while eating, not being able to open the mouth at all or opening it with difficulties, frequent headaches, grinding or clenching behavior, sense of tension because of pressing the teeth, and pain in the jaw area.

"... I was not able to open my mouth even a bit to bite (eat) something... it happened with me that I was waking up in the morning and wasn't able to open my mouth. I was even trying to open it a little bit with the help of my hands just to be able to wash (brush the teeth) and get ready for the work..."

P1, 30 y/o

"The main problem is related to the clicking again... and I clench my teeth frequently... very often, when I wake up in the morning, I feel pain in the jaw area... and I kind of recognize the type of the pain... hmmm and often I have headaches... they became frequent... it's been three years that I began clenching and along with that the headaches became more frequent..."

P2, 24 y/o

1.2 Everyone's attention is on me: Participants described acute distress at being in social situations while having audible symptoms like clicking and crunching sounds. However,

those who did not have very loud clicking were less distressed by the symptom. Some other participants described anxiety due to difficulties they have while opening mouth.

“... they (patients) mainly come and say that, you know, when we are dining everyone’s attention is on me because when I’m chewing a sound is heard.”

Orthodontist

*“My main complains are clicking... while chewing food it’s always heard (**one can always hear that sound**)! ...So when I’m eating in a new environment I try to eat more carefully.”*

P8, 25 y/o

*“My work is related to lot of speaking... in that period when I had problems with my jaw (**restricted mouth opening**) it’s hard for me to speak... but as it’s a job you should do something so that people wouldn’t notice that you have a problem... after that it would cause lots of tension...”*

P1, 30 y/o

“In my case it is mostly over tiredness, becoming a little bit more nervous, during the last hours of the day a bit more... like I want to speak less...”

P6, 24 y/o

“... and let’s imagine that for five years you wanted and weren’t able to chew something... it causes both gastrointestinal problems and nervous disorders... if you try to imagine... that you could not open your mouth fully for five years, all the time... you want to open it but you aren’t able... in a one word definitely these two factors play an important role for the quality of life...”

MFS #2

1.3 A perpetual load on my shoulders: Most participants felt that TMD symptoms were “very unpleasant” [P2, 24 y/o], a burden they carried through life and live with.

*“... it’s very rare for them (**patients**) to have unbearable (**complaints**) but...it’s like a load on one’s shoulders that a person always carries...”*

Orthodontist

*“... I try not to eat a lot of like meat or something that requires long chewing because after chewing it causes pain... this (**showing the TMJ area**) kind of gets locked and the pain goes down (**showing the neck**)... and it’s kind of very unpleasant... I cannot say that it’s very unbearable but anyway I keep feeling it...”*

P2, 24 y/o

Cope until my pain gets worse

Most participants told of trying to manage their TMD symptoms alone and without the guidance of a dentist or other healthcare provider. Only when pain became bothersome did they seek assistance. This category “cope until my pain gets worse” is comprised of the sub-categories “try not to pay much attention” and “see a dentist when the pain medicine doesn’t work”.

2.1 “Try not to pay much attention”: This category demonstrates that despite TMD symptoms caused feeling of tension and annoyance, our participants adapted and tried not to pay much attention to the complaints.

<p><i>“Very often patients don’t pay attention to all that and say well, ok it’ll resolve...”</i></p> <p style="text-align: right;">Polyclinic GDP</p> <p><i>“...I cannot describe it but it has some influence, all this is not limited to that area (TMJ) only... sometimes you think it's (the complaints) not very serious, that's why you try not to pay much attention to it but from the other side you think that anyway it causes some annoyance and anxiety...”</i></p> <p style="text-align: right;">P2, 24 years old</p> <p><i>“When talking about our nation, about our Armenians, we have very adaptive character, we always bear it (the problem), hmmm we kind of resist to it, adapt to it... yes, we don’t pay attention to it...”</i></p> <p style="text-align: right;">GDP #4</p> <p><i>“... very often they (patients) get used to it (complaints) and think that it should be like that and it's something normal...”</i></p> <p style="text-align: right;">Orthodontist</p>
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Moreover, our participants described how they managed their pain in the TMJ area, headaches, and teeth pressing behavior alone.

<p><i>“...during the day I try to relax the muscles, like when doing meditation.”</i></p> <p style="text-align: right;">P4, 40 y/o</p> <p><i>“I try to give a massage to myself when I have pain... overall, through the neck, head...”</i></p> <p style="text-align: right;">P6, 24 y/o</p> <p><i>“I noticed that there was a time when I wanted to open my mouth sharply when it wasn't</i></p>

actually opening... and that process of sharply opening the mouth later made it ache more but when you open it slowly... roughly speaking it's like locked [smiling]... when you open it slowly then it opens easier and later you don't have pain...”

P1, 30 y/o

“...but generally I try to eat softer food so that it (pain) wouldn't disturb a lot.”

P8, 25 y/o

2.2 See a dentist when the pain medicine doesn't help: Most participants referred to pain as major motivational factor for seeking care. Participants spoke about taking over-the-counter medication to relieve their pain, hoping that the symptoms will resolve. Symptom persistence even after taking pain medication was the reason for majority to refer to a specialist. Besides pain, some participants mentioned that limited mouth opening was the reason for them to see a dental provider.

“(Approached a MFS because) I wasn't able to open my mouth at all in the mornings [smiling].”

P1, 30 y/o

“The most disturbing factor for all patients is the pain and all the patients who have referred, they referred when they already had developed a strong pain. And because they always think that it'll disappear... they use some medication at the initial stages... it helps them to relieve the pain and they don't refer to a specialist. They refer when they use medication and it doesn't help... and the main disturbing factor, first of all, is the intense pain... because it's very painful... when you remove the pain factor they get relaxed and think that everything else is ok.”

MFS #2

“... only if the pain gets worse they approach (a dentist). Armenians are like that.”

Polyclinic GDP

“Ineffective procedures and persistence of symptoms”

The category “*Ineffective procedures and persistence of symptoms*” describes a common experience among several interview participants regarding their unresolved TMD symptoms despite referring to a dental provider. Hoping that their TMD symptoms will go away a couple of participants followed their dental provider's recommendation and extracted the third molars. Nonetheless it did not result in their symptom alleviation.

*“Also in my case they've connected it with the wisdom teeth... and have operated (**extracted**) my wisdom teeth and it (**the symptoms**) didn't disappear... I am still having headaches, clicking (**sound**), sometimes I cannot open my mouth...*

P7, 24 y/o

*“...every patient who approaches us with the joint problem, we can say, has pain dysfunction syndrome... and the cause is first of all is premature loss of masticatory teeth (**molars**)... on the first place are bite abnormalities, then the loss of masticatory teeth, which in turn can cause bite abnormalities... presence of third molars, wisdom teeth... these are the causes that we have to find in a patient... it's not a cancer not to able to know what caused it... there's a problem that has a reason.....”*

MFS #2

“... I used to connect this pain (radiating to the temple) with my wisdom teeth, in the past... but after extracting those teeth the pain continued, less but still present. I think there's some residual hmmm problem.

P6, 24 y/o

Another reason for symptom persistence was participants meeting indifference, or specialists who were either incompetent or were not dealing with TMJ-related conditions in their routine practice, thereby were not helpful for patients with TMD symptoms.

*“I approached (**a MFS**)... for tension and clenching, which were always present and were disturbing me... he said yes, this problem is present and like you have to live with it... well, if the problem gets worse, in that case... some surgery and so on... but I didn't get any recommendation about what could relieve this condition...”*

P4, 40 y/o

“Patient didn't refer to the specialist when needed or it might be that they refer but don't get a proper attention for the joint problem.”

GDP #3

*“...let me tell you that a lot forms (**for clinical history collection**) do not contain a section about the joint problems... for example we (**GDPs**) collect the medical history, anamnesis morbi and vitea... when we're filling in these forms about what kind of diseases the person had... there's no section asking about the joint condition... only when the person goes to the orthodontist there they already have a section about that in their forms... but when it comes to GDPs, it's mainly about the teeth condition, the mucous membrane, the hygiene, and what kind of bite the person has... but this point (**TMJ**) is absent...”*

GDP #4

Discussion

The aim of the present study was to qualitatively describe the experiences of TMD signs and symptoms among residents of Yerevan from the perspective of dental providers and individuals with symptoms. Capturing perspectives and experiences of TMD symptoms helped to acquire a deeper understanding with respect to the issue of TMDs.

The findings of our study are summarized under three descriptive categories that demonstrate the main complaints and the way those affect individuals with TMD symptoms, their coping strategies, and problems that such individuals may face while communicating their symptoms to dental providers.

The first important finding of our study demonstrates the complaints that individuals with symptoms suggestive of a TMD diagnoses experience. Due to the presented signs and symptoms people had to cope with several functional limitations that resulted in difficulty speaking, eating solid food or food requiring long chewing. Our participants, besides functional limitations, such as restricted mouth opening, told about awake teeth pressing, night bruxism, feeling pain in the TMJ area, pain radiating to the temples and headaches as complaints causing tension and making them feel anxious. However, the TMD symptoms were not limited to the feeling of pain and physical discomfort. Our participants talked about feeling embarrassed to eat in the presence of strangers because of their jaw joint emitting clicking or crunching sound, audible for people next to them. Despite the presence of unpleasant signs and symptoms suggesting a TMD, often people would reconcile, choose to cope on their own, or try not to concentrate their attention rather than seek professional help.

The experienced complaints and the ways of coping with them, discussed by our participants, were in line with existing literature encompassing thoughts, experiences, beliefs and ways of reconciliation of people with TMDs.^{21,24} Our findings are similar with the results

of a qualitative study conducted with adolescents with TMD pain that demonstrates how functional limitations of not being able to chew, open the mouth wide, or yawn made the individuals with TMD feel tension, moody or irritated.²⁴ However, Nilsson and colleagues²⁴ involved in their study mainly individuals with TMD pain, whereas not all of our study participants mentioned about pain as primary reason of their complaints.

Most of our interview participants described pain or restricted mouth opening as reasons prompting them to seek care, whereas person-related characteristics such as participants' adaptive character led them to manage the complaints alone and not seek a professional care. This finding is in agreement with existing literature, which suggests that the pain is a major motivational factor for care-seeking behavior³⁶ and states that only about half to two-thirds of those who are affected with TMD seek professional treatment.¹ Besides pain, limited mouth opening and sense of tension were mentioned by our participants as reasons for their referral to a specialist.

Our study participants told being prescribed to extract their third molars to alleviate their TMD symptoms. However, this procedure did not result in symptom alleviation. The literature appraisal did not show any evidence about presence of a TMD as an indication for extraction of third molars. On the contrary, findings of the study conducted by Huang and colleagues suggest that third molar extraction is a risk factor for TMD development.³⁹ However, the etiology of TMDs in most of the cases is considered to be unknown, thus the only ethically justifiable TMD management methods are conservative and reversible therapies, focused on symptom relief, after detailed and careful clinical history collection and clinical examination.^{40,41} It should be emphasized that ineffectiveness of conservative treatment, does not guarantee success of more invasive treatment modalities.^{40,41}

The analysis of narratives demonstrates that participants faced indifference towards their experienced TMD symptoms from the side of dental care providers. This phenomenon

was partially explained by the fact of meeting incompetent specialists or providers not accustomed to dealing with TMJ-related conditions. Literature search did not reveal studies about patients' TMD symptoms being neglected by dental providers or underappreciated. This finding may reflect the current situation regarding TMD symptom appreciation among dental providers in Armenian context. Dental providers' failure to appreciate those could be explained by existing lack of knowledge among them.

Study Strengths and Limitations

To our knowledge, this is the first study aimed to discover the experiences of TMD symptoms among individuals with symptoms and dental providers in Armenia. The use of qualitative study design of this study and inductive data analysis method gave the opportunity to describe yet unexplored experiences and perspectives of both groups of participants regarding TMD symptoms.

However, in our study findings been affected by the following methodological aspects. We were limited to a number of only women participants with TMD suggesting signs and symptoms, which might have limited our understanding and appreciation of experiences of their men counterparts. However, triangulation of experiences and perspectives of those with symptoms and dentists partially resolved this issue, since dentists shared perspectives about their men and women TMD patient experiences.

Implications

Further larger-scale research is required for detailed understanding of TMD symptom experiences and assessment of current state of management of this condition in Armenia. However, based on our study findings we suggest the following:

- There is a need for directing greater attention to the experiences of patients with TMD symptoms. A better understanding of experiences of living with TMD symptoms may allow dental providers to be more attentive to possible TMD patients' complaints.

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Appendix 1

English and Armenian Versions

Interview Guide for FGDs with Individuals with TMD Symptoms

Place:

Date:

Time:

Introduction

Welcome

Introduce yourself

Introduce the consent form

1. I noticed that you answered “Yes” to many of the questions (from the screening tool).
Could you please describe me those (your complains)?
2. I am wondering could you please tell me more what these complaints (that the interviewee already noted) actually are for you? Could you describe them more completely?
3. Just tell me more about your experiences (specific experiences). How they influence your everyday life? Probe: Can you give me an example? Did you have to make any lifestyle, dietary, or any other changes in response to your problem? Did they have any impact on your relationships with family members, friends, or colleagues? How?
4. Can you give me an example of how you are coping with that issues (complains) you described? Probe: Maybe you came up with some kind of coping strategy for those issues? Tell me more about it.

5. Did you seek care for the complaints you noted? If no → Can you please tell me the reason why you didn't seek care for the complaints you described?
6. What prompted you to get help? Probe: What was the main reason?
7. What did your dentist (or whoever the participant approached/ referred to) do when you talked about your concerns /when you described what bothered you? Probe: Did you face problems communicating your concerns?
8. Did your dentist (or whoever the participant approached/ referred to) tell you anything/ describe any condition based on your complains? Probe: Did he/she spend time for explaining your condition?
9. Did you seek/ did your dental practitioner suggest seeking help from anyone else?
10. Is there anything about your experiences that I didn't ask but you would like to share with us?

Thank you for participating in our study – your answers have been very interesting and helpful!

**Խմբակային քննարկումների ուղեցույց քունք-ստործնոտային հողի խանգարման
ախտանիշներով անհատների հետ հարցազրույցների համար (հայերեն
տարբերակ)**

Վայր

Ամսաթիվ

Ժամ

Թեմայի ներկայացում

Բարի գալուստ

Ծանոթացում

Իրազեկ համաձայնության ձևի ներկայացում

1. Ես նկատեցի, որ Դուք պատասխանել եք «Այո» տրամադրված հարցաթերթիկի մի շարք հարցերի: Կպատմե՞ք ինձ խնդրեմ Ձեր նշած գանգատների մասին:
2. Ես կուզեի իմանալ ավելին, թե իրականում ի՞նչ են նշանակում այդ գանգատները (**որը որ զրուցակիցը արդև նշել էր**) Ձեզ համար: Կարո՞ղ եք նկարագրել դրանք ամբողջովին:
3. Պատմեք ինձ խնդրեմ ավելին Ձեր փորձառության մասին: Ինչպե՞ս են ազդում (**զրուցակցի նշած գանգատները**) Ձեր ամենօրյա կյանքի, առօրյայի վրա: **Փորձ՝** Կարո՞ղ եք օրինակ բերել: Ձեր խնդրի հետևանքով երբևէ

ստիպված եղե՞լ էք անել որևէ փոփոխություն Ձեր ապրելակերպի, սննդակարգի մեջ կամ այլ ոլորտներում: Ձեր այդ նշած գանգատները որևէ ազդեցություն ունեցե՞լ/ թողե՞լ են Ձեր ընտանիքի անդամների, ընկերների կամ գործակեռների հետ հարաբերությունների վրա: Ինչպե՞ս են ազդել:

4. Կարո՞ղ էք օրինակ բերել / նկարագրել, թե ինչպես էք պայքարում Ձեր նշած գանգատների հետ: **Փորձ՝** Միգուցե Դուք գտե՞լ էք Ձեզ համար հարմար պայքարի ստրատեգիա/ միջոց: Պատմեք ինձ ավելին այդ մասին:
5. Ձեր նշած գանգատների համար երբևէ փնտրե՞լ էք օգնություն: **Եթե ոչ** → Կասե՞ք ինձ խնդրեմ պատճառը:
6. Ի՞նչն է Ձեզ դրդել օգնություն փնտրել: **Փորձ՝** Ո՞րն էր գլխավոր պատճառը:
7. Ի՞նչ արեց/Ինչպե՞ս արձագանքեց Ձեր ստոմատոլոգը (**կամ նա ում զրուցակիցը դիմել էր**), երբ պատմեցիք Ձեր անհանգստությունների մասին/ երբ պատմեցիք Ձեր գանգատները: **Փորձ՝** Ձեր անհանգստությունները (**նրան ում զրուցագիցը դիմել է**) նկարագրելու ժամանակ հանդիպե՞լ էք խնդիրների/ բարդությունների:
8. Հիմնվելով Ձեր նկարագրած գանգատների վրա Ձեր ստոմատոլոգը (**կամ նա ում զրուցագիցը դիմել էր**) ասա՞ց որևիցե բան/ բացատրե՞ց որևիցե հիվանդություն: **Փորձ՝** Նա ժամանակ տրամադրե՞ց Ձեր խնդիրը բացատրելու համար:
9. Դուք փնտրե՞լ էք/ Ձեր ստոմատոլոգը խորհուրդ տվե՞լ է դիմել որևէ այլ մասնագետի:

10. Դուք ունե՞ք որևէ ավելացնելու բան այս թեմայի մասին, որ մենք չքննարկեցինք, բայց կցանկանայիք պատմել մեզ:

Շնորհակալություն մեր հետազոտությանը մասնակցություն ցուցաբերելու համար:

Ձեր պատասխանները շատ հետաքրքիր և օգտակար էին մեզ համար:

Appendix 2

English and Armenian Versions

Interview Guide for IDIs with Dental Practitioners

Place:

Date:

Time:

Introduction

Welcome

Introduce yourself

Introduce the consent form

Hello. Thank you for agreeing to participate in the study. I want to inform you that your full participation in the interview is very important to us. There is no “right” or “wrong” answer to the questions that I will ask you. We appreciate your experience and honest answers very much.

1. Tell me your thought process about patients who present with TMJ pain, TMJ clicking, restricted mouth opening, etc. (*listing typical TMD symptoms*). Probe: Do you associate these symptoms with TMD? If yes → Tell me more of what TMD is in your understanding.
2. How is it for a dentist to deal/communicate with patients having TMD symptoms?
3. What are you feeling is your knowledge base and your ability to diagnose and treat patients with TMD symptoms in your practice? Probe: Tell me about your practice.

What kinds of challenges exist for dentists over arriving at a diagnosis and managing patients with TMD symptoms?

4. Tell me please how were you educated in regards to treating patients with TMD symptoms?
5. What kind of concerns do patients with such symptoms usually share with you? What bothers them mostly? What exactly prompts them to seek care?
6. Talk with me about how you think patients' lives are affected when they have these symptoms? What do you think what is it like for a patient to live with TMD symptoms?
7. In your opinion what kind of difficulties can patients with TMD symptoms face while seeking care for that problem in Armenia?
8. Tell me please who, in your opinion, should be involved in the process of providing care to patients with TMD symptoms besides dentists? Probe: Do you refer patients with TMD symptoms to someone else / other specialists?
9. Is there anything about this topic that we have not discussed but you would like to share with us

Thank you for participating in our study – your answers have been very interesting and helpful!

Անհատական քննարկումների ուղեցույց ստումատոլոգների հետ

հարցազրույցների համար (հայերեն տարբերակ)

Վայր

Ամսաթիվ

Ժամ

Թեմայի ներկայացում

Բարի գալուստ

Ծանոթացում

Իրազեկ համաձայնության ձևի ներկայացում

Շնորհակալություն հետազոտությանը մասնակցելու Ձեր համաձայնության համար: Կցանկանայի Ձեզ տեղեկացնել, որ Ձեր ամբողջական մասնակցությունը շատ կարևոր է մեզ համար և հարցերը, որոնք ես Ձեզ կհարցներմ չունեն ճիշտ կամ սխալ պատասխան: Մենք գնահատում ենք Ձեր փորձը և ազնիվ պատասխանները:

1. Պատմեք ինձ խնդրեմ, թե ի՞նչ մտքեր եք ունենում, երբ հիվանդները անհանգստանում են ՔՄՕՀ-ի շրջանի ցավից, ՔՄՕՀ-ի կտկտոցից, բերանի սահմանափակված բացվածքից, և այլն (**թվել ՔՄՕՀ-ի խանգարման բնորոշ ախտանիշները**): **Փորձ՝** Դուք ասոցացնու՞մ եք այս ախտանիշները ՔՄՕՀ-ի խանգարման հետ: → Կպատմե՞ք ինձ խնդրեմ ավելի մանրամասն, թե որն է ՔՄՕՀ-ի խանգարումն ըստ Ձեր պատկերացման/ հասկացողության:

2. Ինչպե՞ս է ստոմատոլոգի համար հաղորդակցվելը ՔՄՕՀ-ի խանգարման ախտանիշներով հիվանդների հետ:
3. Ըստ Ձեզ ինչպիսի՞ն են Ձեր ստացած գիտելիքները և ունակությունները ՔՄՕՀ-ի խանգարման ախտանիշներով հիվանդներին ախտորոշելու և բուժելու մեջ: **Փորձ՝** Կպատմե՞ք ինձ Ձեր պրակտիկայի մասին: Ինչպիսի՞ մարտահրավերներ/ խնդիրներ կան ստոմատոլոգների համար ՔՄՕՀ-ի խանգարման ախտանիշներով հիվանդների ախտորոշման և բուժման / հսկման մեջ:
4. Պատմեք ինձ խնդրեմ, թե ի՞նչ պատրաստվածություն ունեք ՔՄՕՀ-ի խանգարման ախտանիշներով հիվանդներին բուժելու վերաբերյալ:
5. Սովորաբար ի՞նչ մտահոգություններ են Ձեզ հետ կիսում նման ախտանիշներով հիվանդները: Ի՞նչն է նրանց անհանգստացնում ամենաշատը: Ի՞նչն է, որ նրանց դրդում է դիմել բժիշկի:
6. Ասեք ինձ խնդրեմ, Ձեր կարծիքով ինչպե՞ս են նման ախտանիշները ազդում հիվանդների կյանքի որակի վրա: Ի՞նչ եք կարծում, ինչպե՞ս է ապրում ՔՄՕՀ-ի խանգարման ախտանիշներով հիվանդը՝ զգացողությունները, դժվարությունները և փորձառությունները :
7. Ձեր կարծիքով ի՞նչ դժվարությունների կարող են հանդիպել ՔՄՕՀ-ի խանգարման ախտանիշներով հիվանդները Հայաստանում օգնություն կամ խնամք փնտրելիս:
8. Դուք հղու՞մ եք նման հիվանդների այլ մասնագետների մոտ: **Փորձ՝** Ձեր կարծիքով բացի ստոմատոլոգներից, ովքե՞ր պետք է նրգրավված լինեն

ՔՄԾՀ-ի խանգարման ախտանիշներով հիվանդներին օգնություն տրամադրելու գործում:

9. Դուք ունե՞ք որևէ ավելացնելու բան այս թեմայի մասին, որը մենք չքննարկեցինք, բայց կցանկանայիք ավելացնել, պատմել մեզ:

Շնորհակալություն մեր հետազոտությանը մասնակցություն ցուցաբերելու համար:

Ձեր պատասխանները շատ հետաքրքիր և օգտակար էին մեզ համար:

Appendix 3

IRB Approval of the Study Protocol



American
University
of Armenia | Հայաստանի
Ամերիկյան
Համալսարան

March 16, 2016

PRINCIPAL INVESTIGATOR: Sarah H. Kagan, PhD, RN
STUDENT INVESTIGATOR: Shogher Muradyan, BDent, MPH Candidate
TITLE: Qualitative Description of Experiences of Temporomandibular Joint Disorder Symptoms
in Yerevan, Armenia
PROTOCOL #: AUA-2016-009

Sarah H. Kagan, PhD, RN; Shogher Muradyan, BDent, MPH Candidate
Via Email: skagan@nursing.upenn.edu; shogher_muradyan@edu.aua.am

Dear Drs. Kagan and Muradyan,

The above referenced protocol was reviewed and approved by the member of the Institutional Review Board of the American University of Armenia using the expedited procedure set forth in 45 CFR 46.110, category 6,7, on March 16, 2016. This study will be due for continuing review on or before March 16, 2017. Annual continuing reviews will be required for this proposal. The proposed study can proceed as it is approved by the AUA IRB. However, please note, the IRB must be kept apprised of any and all changes in the research that may have an impact on the level and type of IRB review needed for a specific proposal. You are required to notify the AUA IRB if any changes are proposed in the study that might alter its IRB status and consent procedures. New procedures that may have an impact on the risk-to-benefit ratio cannot be initiated until IRB approval has been given. Please retain this letter as documentation of the IRB's determination regarding your proposal. Please contact me, at vpetrosi@aua.am with a copy to auairb@aua.am, should you have any questions about the information in this letter. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'V. Petrosyan'.

Varduhi Petrosyan, MS, PhD
Primary Member, AUA IRB
Associate Professor
Director, Center for Health Services Research & Development
Dean, School of Public Health
American University of Armenia

40 Baghramyan Avenue
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Appendix 4

American University of Armenia

School of Public Health

Institutional Review Board #1

Qualitative Description of Experiences of Dealing with Temporomandibular Joint

Disorder Symptoms in Yerevan, Armenia

FGD consent form for Individuals with TMD Symptoms

Hello, my name is Shogher. I am a dentist and a second year master student in the School of Public Health at the American University of Armenia. As a part of my thesis project I with my advising team members are conducting a study, which aims to explore the experiences of dental practitioners and people who have some symptoms in the area of temporomandibular joint (the joints at the sides of the head that help you to move the mandible).

You are one of approximately 16 to 20 people who I approached by convenience and asked to participate in this study based on the results of the screening form. You are invited to participate in this study and answer to several of questions about your experiences of having these symptoms. The interview will take no longer than 30 to 40 minutes and will include only this interview today.

I want to inform you that participation in this project is voluntary and there is no penalty if you refuse to participate. Your participation or refusal for participation will not have any consequences (*it will not have any effects on the treatment you are receiving now or will be receiving in the future*). It is your right to refuse to answer any question you will not want to answer and even to stop the interview.

Information provided by you is fully confidential and will be used in research purposes only.

Quotes from what you say may be used in combination with quotes made by others in the

presentation of the final project but your name or any identifiable information will not appear anywhere.

Although you will not benefit directly from participating in this study but you will help us and other dentists to better understand the experiences of people in Armenia who have this problem.

With your permission, I will use an audio recording to ensure that we will not miss any information that you will share with us. My notes and recording will be stored without any information that can identify you and they will be destroyed at the end of the entire project. Please remember that it is within your right to ask to turn off the recorder at any time during the interview, whenever you find it necessary.

Before we will proceed, I want to make sure that you have received answers to questions that interest you. Do you have any other question about your participation? If you have any questions regarding this study you can call the Co-Investigator Dr. Kristina Akopyan at 060 61 25 61. If you feel you have not been treated fairly or think joining the study has hurt you you should contact Dr.Varduhi Petrosyan the member of Institutional Review Board of the American University of Armenia 060 61 25 92.

Do you agree to participate?

Can I turn on the recorder? Can we start?

Հայաստանի ամերիկյան համալսարան

Հանրային առողջապահության բաժին

Գիտահետազոտական էթիկայի թիվ 1 հանձնաժողով

Քունք-ստործնոտային հողի խանգարման ախտանիշների փորձառության

որակական նկարագրություն: Երևան, Հանայաստան

Իրազեկ համաձայնության ձև ՔՄՕՀ-ի խանգարման ախտանիշներով անհատների

հետ խմբակային հարցազրույցների համար

Բարև Ձեզ, իմ անունը Շողեր է: Ես մասնագիտությամբ ստոմատոլոգ եմ և հանդիսանում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության մագիստրոսական ծրագրի երկրորդ կուրսի ուսանողուհի: Ես իմ գիտական ղեկավարների հետ համատեղ, ավարտական թեզի շրջանակներում, իրականացնում եմ մի հետազոտություն, որի նպատակն է բացահայտել ստոմատոլոգների փորձը և այն անհատների փորձառությունը, ովքեր քունք-ստործնոտային հողի շրջանում ունեն որոշ ախտանիշներ (դա այն հողն է, որը շարժում է ստորին ծնոտը):

Դուք լինելու եք այն 16-20 մարդկացից մեկը, ում ես մոտեցել եմ հարմարության սկզբունքով և խնդրել եմ մասնակցել հետազոտությանը, հիմնվելով սկրինինգային ձևի պատասխանների վրա: Դուք հրավիրված եք մասնակցելու այս հետազոտությանը և Ձեր մասնակցությունը ներառում է այս հարցազրույցը, որի ժամանակ ես կտամ մի քանի հարց Ձեր ունեցած ախտանիշների փորձառության

վերաբերյալ: Ձեր մասնակցությունը սահմանափակվում է միայն մեկ հարցազրույցով, ինչը կտևի ոչ ավել քան 30-40 րոպե:

Կուզեմ տեղեկացնել, որ Ձեր մասնակցությունն այս հետազոտությանը կամավոր է և Ձեզ ոչինչ չի սպառնում, եթե հրաժարվեք մասնակցել հետազոտությանը: Ձեր մասնակցությունը կամ մասնակցությունից հրաժարվելը որևէ հետևանք չի ունենա, *(չի անդրադառնա Ձեր ներկա կամ ապագա բուժապասարկման վրա)*: Դուք կարող եք հրաժարվել պատասխանել ցանկացած հարցի կամ անգամ ընդհատել հարցազրույցը:

Ձեր կողմից տրամադրված ցանկացած ինֆորմացիա կպահպանվի գաղտնի և կկիրառվի միայն հետազոտական նպատակներով: Մեր զրույցից որոշ մեջբերումներ կօգտագործվեն հետազոտության վերջնական արդյունքները պարունակող զեկույցում, մյուս մասնակիցների մեկնաբանությունների հետ համակցված, առանց շոշափելու Ձեր անունը:

Թեև Դուք որևէ անմիջական օգուտ չեք ստանա մասնակցելով այս հետազոտությանը, սակայն մեծ աջակցություն կցուցաբերեք մեզ և ուրրիշ ստոմատոլոգների ավելի լավ հասկանալու այն մարդկանց փորձառությունը, ովքեր ունեն այս խնդիրը Հայաստանում:

Ձեր համաձայնությամբ ես կձայնագրեմ մեր հարցազրույցը, որպեսզի ոչ մի կարևոր ինֆորմացիա բաց չթողնեմ: Իմ նշումները և ձայնագրությունը կպահվեն առանց որևէ ինֆորմացիայի, որը կարող է բացահայտել Ձեզ և դրանք կոչնչացվեն

ամբողջ հետազոտության ավարտից հետո: Ուզում եմ Ձեզ հիշեցնել, որ դա Ձեր իրավունքն է խնդրել անջատել ձայնագրիչը հարցազրույցի ընթացքում, երբ կհամարեք անհրաժեշտ:

Մինչ մենք կսկսենք, ես կցանկանայի համոզվել, որ Դուք ստացել եք Ձեզ հուզող հարցերի պատասխանները: Դուք ունե՞ք որևէ այլ հարց կապված այս հետազոտությունում Ձեր մասնակցության վերաբերյալ: Հետազոտության վերաբերյալ հարցեր ունենալու դեպքում կարող եք կապվել հետազոտության համակարգողի՝ Քրիստինա Հակոբյանին հետ հետևյալ հեռախոսահամարով՝ 060 61 25 61: Եթե կարծում եք, որ Ձեզ հետ ճիշտ չեմ վարվել կամ որևէ կերպ վիրավորել եմ հարցազրույցի մասնակցության ընթացքում, Դուք կարող եք դիմել Հայաստանի ամերիկյան համալսարանի գիտական էթիկայի հանձնաժողովի ներկայացուցիչ՝ Վարդուհի Պետրոսյանին հետևյալ հեռախոսահամարով՝ 060 61 25 92 :

Դուք համաձայն եք մասնակցել:

Դուք համաձայն եք, որ ես միացնեմ ձայնագրիչը: Եթե Դուք պատրաստ եք մենք կարող ենք սկսել:

Appendix 5

American University of Armenia

School of Public Health

Institutional Review Board #1

Qualitative Description of Experiences of Dealing with Temporomandibular Joint

Disorder Symptoms in Yerevan, Armenia

IDI consent form for Dentists

Hello, my name is Shogher. I am a dentist and a second year master student in the School of Public Health at the American University of Armenia. As a part of my thesis project I with my advising team members am conducting a study, which aims to explore the experiences of dental practitioners and people who have some symptoms in the area of temporomandibular joint.

You are one of approximately 16 to 20 people who are invited to participate in this study by answering to a couple of questions about their clinical experiences. The interview will take no longer than 30 to 40 minutes.

I want to inform you that participating in this project is voluntary and there is no penalty if you refuse to participate. Your participation will not have any consequences for you and will include only this interview today. It is your right to refuse to answer any question you will not want to answer and even to stop the interview.

Information provided by you is fully confidential and will be used in research purposes only. Quotes from what you say may be used in combination with quotes made by others in the presentation of the final project but your name will not appear anywhere. Although you will not benefit directly from participating in this study but you will help us to better understand the experiences of dentists dealing with patients with TMD symptoms in Armenia.

With your permission, I will use an audio recording to ensure that we will not miss any information that you will share with us. My notes and recording will be stored without any information that can identify you and they will be destroyed at the end of the entire project. Please remember that it is within your right to ask to turn off the recorder at any time during the interview, whenever you find it necessary.

Before we will proceed, I want to make sure that you have received answers to questions that interest you. Do you have any other question about your participation? If you have any questions regarding this study you can call the Co-Investigator Dr. Kristina Akopyan at 060 61 25 61. If you feel you have not been treated fairly or think joining the study has hurt you you should contact Dr. Varduhi Petrosyan, the member of Institutional Review Board of the American University of Armenia 060 61 25 92.

Do you agree to participate?

Can I turn on the recorder? Can we start?

Հայաստանի ամերիկյան համալսարան

Հանրային առողջապահության բաժին

Գիտահետազոտական էթիկայի թիվ 1 հանձնաժողով

Քունք-ստործնտային հողի խանգարման ախտանիշների փորձառության

որակական նկարագրություն: Երևան, Հանայաստան

Իրագել համաձայնության ձև ստոմատոլոգների հետ անհատական

հարցազրույցների համար

Բարև Ձեզ, իմ անունը Շողեր է: Ես մասնագիտությամբ ստոմատոլոգ եմ և հանդիսանում եմ Հայաստանի ամերիկյան համալսարանի Հանրային առողջապահության մագիստրոսական ծրագրի երկրորդ կուրսի ուսանողուհի: Որպես իմ թեզային աշխատանքի մաս ես և իմ ղեկավարական անձնակազմը իրականացնում ենք հետազոտություն, որի նպատակն է բացահայտել ստոմատոլոգների փորձը և այն անհատների փորձառությունը, ովքեր ունեն որոշ ախտանիշներ քունք-ստործնտային հողի շրջանում:

Դուք լինելու եք այն 16-20 մարդկացից մեկը, ովքեր հրավիրված են մասնակցելու այս հետազոտությանը՝ պատասխանելով մի քանի հարցերի իրենց կլինիկական փորձի վերաբերյալ: Ձեր մասնակցությունը սահմանափակվում է միայն մեկ հարցազրույցով, ինչը կտևի ոչ ավել քան 30-40 րոպե:

Կուզեմ տեղեկացնել, որ Ձեր մասնակցությունն այս հետազոտությանը կամավոր է և Ձեզ ոչինչ չի սպառնում, եթե հրաժարվեք մասնակցել հետազոտությանը: Ձեր մասնակցությունը սահմանափակվում է միայն մեկ հարցազրույցով: Դա Ձեր

իրավունքն է հրաժարվել պատասխանել ցանկացած հարցի, որին չեք ցանկանա պատասխանել կամ անգամ կարող եք ընդհատել հարցազրույցը:

Ձեր կողմից տրամադրված ցանկացած ինֆորմացիա կպահպանվի գաղտնի և կկիրառվի միայն հետազոտական նպատակներով: Մեր զրույցից որոշ մեջբերումներ կօգտագործվեն հետազոտության վերջնական արդյունքները պարունակող զեկույցում, մյուս մասնակիցների մեկնաբանությունների հետ համակցված, առանց շոշափելու Ձեր անունը: Թեև Դուք որևէ անմիջական օգուտ չեք ստանա մասակցելով այս հետազոտությանը, սակայն մեծ աջակցություն կցուցաբերեք մեզ ավելի լավ հասկանալու Հայաստանում ստոմատոլոգների փորձառությունը ԲՄԾՀ-ի խանգարման ախտանիշերով հիվանդների հետ առնչվելու ընթացքում:

Ձեր համաձայնությամբ ես կձայնագրեմ մեր հարցազրույցը, որպեսզի ոչ մի կարևոր ինֆորմացիա բաց չթողնեմ: Իմ նշումները և ձայնագրությունը կպահվեն առանց որևէ ինֆորմացիայի, որը կարող է Ձեզ բացահայտել և դրանք կոչնչացվեն հետազոտության ամբողջ ավարտից հետո: Ուզում եմ Ձեզ հիշեցնել, որ դա Ձեր իրավունքն է խնդրել անջատել ձայնագրիչը հարցազրույցի ընթացքում, երբ կհամարեք անհրաժեշտ:

Մինչ մենք կսկսենք, ես կցանկանայի համոզվել, որ Դուք ստացել եք Ձեզ հուզող հարցերի պատասխանները: Դուք ունե՞ք որևէ այլ հարց կապված այս հետազոտությունում Ձեր մասնակցության վերաբերյալ: Հետազոտության վերաբերյալ հարցեր ունենալու դեպքում կարող եք կապվել հետազոտության

համակարգողի՝ Քրիստինա Հակոբյանին հետևյալ հեռախոսահամարով՝ 060 61 25 61: Եթե կարծում եք, որ Ձեզ հետ ճիշտ չեմ վարվել կամ որևէ կերպ վիրավորել եմ հարցազրույցի մասնակցության ընթացքում, Դուք կարող եք դիմել Հայաստանի ամերիկյան համալսարանի գիտական էթիկայի հանձնաժողովի ներկայացուցիչ՝ Վարդուհի Պետրոսյանին հետևյալ հեռախոսահամարով՝ 060 61 25 92 :

Դուք համաձայն եք մասնակցել:

Դուք համաձայն չեք, որ ես միացնեմ ձայնագրիչը: Եթե Դուք պատրաստ եք մենք կարող ենք սկսել:

Appendix 6
English and Armenian Versions

Fonseca's Questionnaire for Assessing TMD Severity

Questions	No (0)	Sometimes (5)	Yes (10)
1. Is it hard for you to open your mouth?	-do-	-do-	-do-
2. Is it hard for you to move your mandible from side to side?	-do-	-do-	-do-
3. Do you get tired/ muscular pain while chewing?	-do-	-do-	-do-
4. Do you have frequent headaches?	-do-	-do-	-do-
5. Do you have pain on the nape or stiff neck?	-do-	-do-	-do-
6. Do you have earaches or pain in craniomandibular joints?	-do-	-do-	-do-
7. Have you noticed any TMJ (<i>the joint at the sides of the head</i>) clicking while chewing or when you open your mouth?	-do-	-do-	-do-
8. Do you clench or grind your teeth?	-do-	-do-	-do-
9. Do you feel your teeth do not articulate well?	-do-	-do-	-do-
10. Do you consider yourself a tense (nervous) person?	-do-	-do-	-do-

Clinical index classification of Fonseca' Questionnaire

Total between 0 and 15 points

No TMD

Total between **20** and **40** points

Mild TMD

Total between **45** and **65** points

Moderate TMD

Total between **70** and **100** points

Severe TMD

Հարցաշար

Հարցեր	Ոչ (0)	Երբեմն (5)	Այո (10)
1. Դժվարանու՞մ եք բացել բերանը:			
2. Դժվարանու՞մ եք շարժել ստորին ծնոտը մի կողմից մյուս կողմ:			
3. Ծամելիս հոգնու՞մ եք / ունենու՞մ եք մկանային ցավ:			
4. Դուք հաճա՞յն եք ունենում գլխացավեր:			
5. Ունենու՞մ եք արդյոք ցավ ծոծրակի շրջանում կամ քարացած (լարված) պարանոց:			
6. Ունենու՞մ եք ականջի ցավ կամ ցավ՝ քունքը ստորին ծնոտին կապող հողի շրջանում:			
7. Ծամելիս կամ բերանը լայն բացելիս քունքը ստորին ծնոտին կապող հողի շրջանում նկատե՞լ եք կտկտոց:			
8. Սեղմու՞մ կամ կրճտացնու՞մ եք Ձեր ատամները:			
9. Զգացե՞լ եք, որ Ձեր ատամները ճիշտ չեն միանում իրար :			
10. Ձեզ համարու՞մ եք լարված (նյարդային) մարդ:			

- Գումարային միավորը՝** 0-15
 20-40
 45-65
 70-100

Appendix 7

English and Armenian Versions

Socio-Demographic Form for TMD Population

Are you citizen of Armenia?	1. Yes 2. If not than what country? _____
What is your age?	_____
What is your gender?	<input type="checkbox"/> Male <input type="checkbox"/> Female
What is your marital status?	1. Married 2. Single 3. Separated/Divorced 4. Widowed
What is the highest level of education you completed?	1. Basic school 2. Secondary / High school 3. Professional technical education 4. Institute / University or Postgraduate
What is your current employment status?	1. Employed 2. Unemployed 3. Student 4. Retired 5. Other _____
At present do you have any comorbidities?	6. No 7. If Yes, then what are those? _____

Սոցիալ դեմոգրաֆիկ ձև

1. Դուք Հայաստանի Հանրապետության քաղաքացի ե՞ք	1. Այո 2. Եթե ոչ, ապա որ երկրի _____
2. Ձեր տարիքը	_____
3. Ձեր սեռը	1. Արական 2. Իգական
4. Ձեր ներկայիս ամուսնական կարգավիճակը	1. Ամուսնացած 2. Չամուսնացած 3. Բաժանված 4. Այրի
5. Ո՞րն է Ձեր կրթության ամենաբարձր	1. Հիմնական

աստիճանը:	2. Միջնակարգ/ Ավագ դպրոց 3. Միջին մասնագիտական տեխնիկում, ուսումնարան, քոլեջ 4. Ինստիտուտ/ Համալսարան կամ հետդիպլոմային
6. Ձեր ներկայիս զբաղվածությունը	1. Աշխատում եմ 2. Գործազուրկ 3. Ուսանող 4. Թոշակառու 5. Այլ _____
7. Ներկայումս ունե՞ք կողմնակի ուղեկցող հիվանդություններ:	1. Ոչ 2. Եթե այո, ապա ի՞նչ _____

English and Armenian Versions of Socio-Demographic Forms for Dentists

Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female
Specialty in dentistry	1. General Dental Practitioner
	2. Prosthodontist
	3. Orthodontist
	4. Maxillofacial Surgeon
	5. Pediatric Dentist

Բժիշկների համար

Ձեր սեռը	<input type="checkbox"/> Արական <input type="checkbox"/> Իգական
Ձեր մասնագիտությունը	1. Ընտանեկան բժիշկ-ստոմատոլոգ
	2. Օրթոպեդ
	3. Օրթոդոնտ
	4. Դիմաձևտալիս վիրաբույժ
	5. Մանկական ստոմատոլոգ

Table 1*Demographic Characteristics of FGD Participants with TMD Symptoms*

Characteristics	Number of participants
TMD severity *	
<i>Mild</i>	2
<i>Moderate</i>	4
<i>Severe</i>	3
Citizens of Armenia	9
Mean age, (range)	25 years, (23-40)
Gender	
<i>Female</i>	9
Marital status	
<i>Married</i>	3
<i>Single</i>	6
Highest level of education	
<i>Institute / University or Postgraduate</i>	9
Employment status	
<i>Employed</i>	6
<i>Student</i>	3
Presence of comorbidities	
<i>No</i>	7
<i>Yes</i>	2**

*According to Fonseca's questionnaire

** One of the participants had autoimmune thyroiditis and prediabetes; another participant had a diagnosis of neck stiffness

Dental providers

Specialty	Male	Female
General dental practitioner	1	3
Maxillofacial surgeon	2	-
Prosthodontist	1	-
Orthodontist	1	-