

Parental Perception of Oral Health-related Quality of Life of Syrian Refugee Children

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ABSTRACT

Aims and Objectives: The conflict in Syria has resulted in the displacement of over 5 million people, many of whom intend to return home at the cessation of hostilities. Oral health plays a critical role in early childhood and this study aimed to qualitatively and quantitatively assess the oral health-related quality of life (OHRQoL) of these children.

Materials and Methods: The quantitative assessment of OHRQoL was done using a validated Arabic version of the short-form Parental-Caregiver Perceptions Questionnaire-8 (P-CPQ-8). The P-CPQ-8 was administered to 22 sets of parents of children in a community center catering to urban refugees. A focus group interview and thematic analysis of nine mothers were used to gain a qualitative insight into the problems that could affect the OHRQoL of their children.

Results: The P-CPQ-8 revealed that oral symptoms were the greatest concern of the parents with dental pain being the most commonly reported condition. Although mothers reported higher P-CPQ-8 scores among all domains than fathers, there were no significant differences in the concerns of the fathers and the mothers. The focus group interview raised three major themes - (1) access to dental care, (2) pain felt by the child, and (3) oral hygiene of the child.

Conclusion: The parents interviewed in this study were aware of the importance of oral hygiene but reported being unable to look after their children's teeth. Children who are refugees from the Syrian conflict face significant OHRQoL challenges

KEYWORDS: *Early childhood, oral health-related quality of life, Parental-Caregiver Perceptions Questionnaire-8, refugees*

Received : 11-06-17.

Accepted : 10-07-17.

Published : 31-07-17.

INTRODUCTION

The conflict in Syria has been raging since 2011 and is estimated to have displaced over 5 million refugees and countless more internally displaced persons.^[1,2] This has led to the largest migration of refugees since the Second World War.^[1,3] Although the crisis of refugees escaping into Europe has received considerable attention in the literature,^[1,3] it must be remembered that the larger bulk of refugees are located in the countries that share land borders with Syria, namely Jordan, Lebanon, and Turkey.^[4,5]

It is an established fact that, after the first few years of displacement, health-care concerns of refugees shift from seeking attention for medical emergencies, to the

treatment of chronic conditions.^[6] Oral health has been shown to be one of the many chronic health conditions that affect the quality of life of refugees.^[6-8] Recent literature on the health status of Syrian refugees seeking health care have identified oral health problems to be a pressing health-care need.^[8] Oral health is crucial in early childhood, and long-term oral health problems can result in loss of weight and failure to thrive.^[9] A recent review of literature has shown that refugee children are particularly vulnerable to the debilitating effects of oral diseases.^[10]

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How to cite this article: Pani SC, Al-Sibai SA, Rao AS, Kazimoglu SN, Mosadomi HA. Parental perception of oral health-related quality of life of Syrian refugee children. J Int Soc Prevent Communit Dent 2017;7:191-6.

Access this article online	
Quick Response Code: 	Website: www.jispcd.org
	DOI: 10.4103/jispcd.JISPCD_212_17

Oral health-related quality of life (OHRQoL) is a multidimensional construct that includes a subjective evaluation of the individual’s oral health, functional well-being, emotional well-being (EW), expectations and satisfaction with care, and sense of self.^[11] The short-form Parental-Caregiver Perceptions Questionnaire-8 (P-CPQ-8) of a child’s oral health is a questionnaire that has been successfully translated and validated in Arabic.^[12] However, questionnaires alone do not explore the complexities of quality of life, and the combination of traditional quantitative methods with qualitative interviews has been referred to in literature as mixed method studies and has been shown to be useful in providing an in-depth understanding of physical and psychological impacts of disease.^[13]

Studies on the health-care needs of Syrian have reported the significance of oral health.^[3,6,14] However, there have been few attempts to identify the impact or perception of oral health-care needs on quality of life among the parents of refugee children. This study aimed to use the P-CPQ-8 questionnaire to quantitatively assess OHRQoL among the parents of children aged below 6 years and then use a focus group interview to explore the factors influencing their perceptions of their children’s oral health.

MATERIALS AND METHODS

ETHICAL APPROVAL AND CONFIDENTIALITY

The ethical approval was obtained from the Institutional Review Board of the Riyadh Colleges of Dentistry and Pharmacy FRP/2016/218 as well as permission to conduct the interviews in the HAYAD charitable foundation (Kirikhan, Turkey) which is the organization

managing the community center and the clinics. To protect confidentiality of the parents, each parent in the interview was assigned a number and they were not identified by name on any of the recordings or transcripts. The consent to participate in the interview was obtained in the form of recorded verbal assent.

QUANTITATIVE ASSESSMENT OF ORAL HEALTH-RELATED QUALITY OF LIFE

The parental perception of their children’s oral health was recorded using a validated Arabic version of the P-CPQ-8 questionnaire. The questionnaire contains eight questions with two questions in each of the four domains: (a) oral symptoms (OSs), (b) functional limitations (FLs), (c) EW, and (d) social well-being. The parents scored each of the questions on a five-point Likert scale with “never” (0), “once or twice” (1), “sometimes” (2), “often” (3), and “every day or almost every day” (4). The minimum possible score was 0 and the maximum possible score was 32 [Table 1].

QUALITATIVE ASSESSMENT OF DATA

Parents who completed the P-CPQ-8 were then screened purposively to create three subsets; those with low P-CPQ-8 scores (<10), intermediate P-CPQ-8 scores (11–21), and high P-CPQ-8 scores (>21). Three mothers from each category were invited to participate in a focus group interview (*n* = 9). The interview was conducted in the community hall of the center to place the respondents in a familiar setting. The discussion was conducted and moderated by two of the investigators (SA and AR) who ensured that all the participants contributed to the discussion. The discussion was based on an in-depth interview guide that was prepared by the principal investigator (SCP) and sought to combine

Table 1: Parental-Caregivers Perceptions Questionnaires-8 responses of the population*

Domain	Question	Never (0) (%)	Once or twice (1) (%)	Sometimes (2) (%)	Often (3) (%)	Every day/almost every day (4) (%)
OS	Pain in the teeth, lips, jaws, or mouth	16 (38.1)	1 (2.7)	14 (32.4)	6 (14.3)	4 (9.5)
	Food caught in or between the teeth	27 (64.3)	4 (9.5)	5 (11.9)	5 (11.9)	1 (2.7)
EW	Been upset	20 (47.6)	2 (5.4)	14 (32.4)	5 (13.5)	1 (2.7)
	Been irritable or frustrated	29 (69)	7 (16.7)	4 (9.5)	1 (2.7)	2 (5.4)
FL	Difficulty biting or chewing firm foods	26 (61.9)	4 (9.5)	6 (14.3)	4 (9.5)	2 (5.4)
	Taken longer than others to eat a meal	27 (64.3)	5 (11.9)	3 (7.1)	5 (11.9)	0
SW	Missed school or preschool	23 (54.8)	2 (5.4)	10 (23.8)	5 (13.5)	2 (5.4)
	Not wanted to talk to other children	25 (59.4)	2 (5.4)	10 (23.8)	4 (9.5)	1 (2.7)

*Based on the short-form P-CPQ-8. P-CPQ-8=Parental-Caregivers Perceptions Questionnaires-8, EW=Emotional well-being, FL=Functional limitations, SW=Social well-being, OS=Oral symptoms

the themes of the P-CPQ-8 with existing themes in the literature [Table 2]. The interviews were audio recorded and care was taken not to use real names of any of the participants to ensure confidentiality as previously stated. The recorded interviews were transcribed into Arabic and translated into English by two bilingual investigators (SA and SK) using the Cross-Cultural Adaptation Process for Patient-Reported Outcomes Measures to ensure consistency and congruity of all data. These measures included the following steps: (1) preparation, (2) forward translation, (3) Reconciliation, (4) back translation, (5) back translation review, (6) harmonization, (7) cognitive debriefing, (8) review of cognitive debriefing results and finalization, (9) proofreading, and (10) final report.^[15]

SAMPLE SELECTION

An invitation to participate in the study was given out to fifty convenient sets of parents of children below the age of 6 years. Parents who consented to participate in the study were asked to fill in the Arabic short-form P-CPQ and a sample of mothers was selected from this group for the focus group interview [Figure 1]. The parents were part of a community center catering to the needs of refugees intending to return to Syria at the end of the conflict located at Kirikhan, Turkey, 20 km from the Syrian border. The interviews were conducted in the community room of the office of the charitable organization; a place that was familiar to the mothers and was intended to put them at ease.

ANALYSIS OF DATA

The demographic and quantitative data were analyzed using SPSS Statistical Software version 21 (IBM-SPSS, IBM corp., Chicago IL, USA). Mann-Whitney U-test was used to compare the P-CPQ-8 scores between fathers and mothers across domains.

The final report of the English transcripts was analyzed using the NVivo plus version 11 (QSR Corp., Melbourne, Australia) software (SCP) and coded manually (AR) and the resultant nodes and themes were examined, and themes common to both were synthesized into a thematic analysis.

RESULTS

Of the fifty sets ($n = 100$) of parents contacted only thirty ($n = 60$) agreed to participate in the study. Of these, only 21 ($n = 42$) completed the questionnaire. The mean age of the sample participants was 38.2 years (± 8.1 years). The fathers (39.1 ± 7.2 years) were older than the mothers (35.2 ± 9.1 years), but the difference in age was not statistically significant. The demographic profile of the sample showed that all the respondents had completed high school education at least

Table 2: Question guide for the focus group interview

Topic	Questions
Overall oral health	How do you find the oral health of your child?
OS	Is the oral health a burden on you?
	What is the worst thing about your child's dental problems?
	How do you cope with these problems?
Functional and social limitations	Do you feel your child is limited by his/her dental conditions?
	What are these limitations?
	Do you feel they have a role to play in his/her interactions with other children
Dental care	How do you maintain your children's teeth?
	Do you have access to dental care?

OS=Oral symptoms

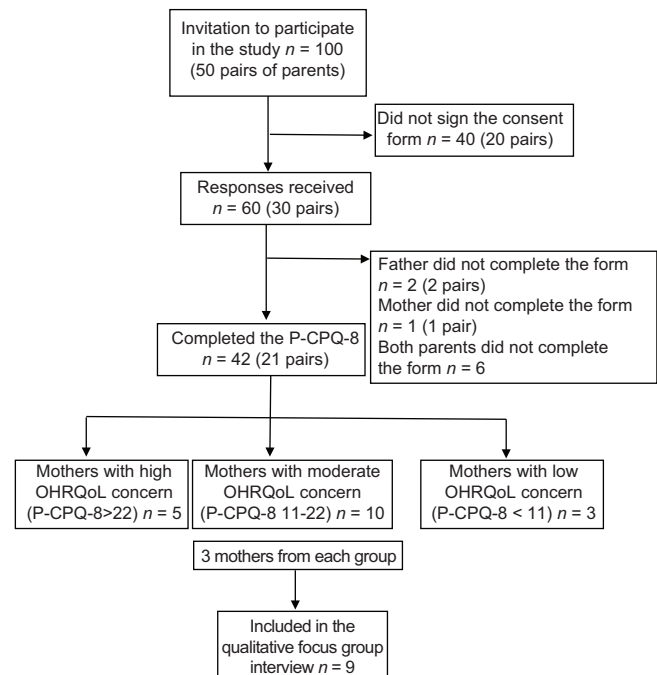


Figure 1: Study design

with over half of the fathers ($n = 14$) and many of the mothers ($n = 9$) holding some form of college degree.

QUANTITATIVE ANALYSIS

The overall P-CPQ-8 scores ranged between 8 and 31, with the mothers scoring higher than the fathers in all the domains [Table 3]. The differences between parents, however, were not statistically significant. The OS domain had the highest mean score (4.56 ± 2.2) with high scores being reported by both fathers and the mothers [Table 3]. A look at the responses of the parents showed that, within this domain, pain in the teeth was of the greatest concern with only 38% of the parents reporting that their child had never experienced pain [Table 1]. Both fathers and mothers scored the FLs

Table 3: Differences in Parental Caregivers Perceptions Questionnaires scores between fathers and mothers

	Relationship	Mean	SD	Mann-Whitney U-test	Significant
OS	Father	4.06	2.01	144.00	0.448
	Mother	4.95	2.43		
EW	Father	3.43	1.45	109.00	0.073
	Mother	4.85	2.32		
FL	Father	3.43	2.15	148.00	0.514
	Mother	3.95	2.06		
SW	Father	3.56	1.59	154.50	0.666
	Mother	4.42	2.29		
P-CPQ8	Father	14.50	5.88	152.50	0.663
	Mother	18.19	6.28		

*No significant differences observed. P-CPQ-8=Parental-Caregivers Perceptions Questionnaires-8, SD=Standard deviation, OS=Oral symptoms, EW=Emotional well-being, FL=Functional limitations, SW=Social well-being, SD=Standard deviation

component of the P-CPQ the lowest [Table 3]. Over 60% of the parents reported never having witnessed FLs of oral health in their children [Table 1].

QUALITATIVE ANALYSIS

When the English translation of the transcripts was entered into the NVivo software to discover underlying themes, analysis of the transcripts revealed three basic underlying themes.

1. Access to the dental clinic
2. Pain felt by the child
3. Oral hygiene of the child.

Access to dental care

The cost of transportation figured prominently in most mothers' concerns for oral health care. However, more prominent was the fear of taking off work for the care of their children. Many of the mothers were reminiscent of their time in Syria when they had regular jobs and could take time off work to bring their children to work. As one mother put it:

"I get really upset for my children, most of my children have dental problems but I don't always have the ability to take them to the dentist even if the treatment is for free."

Pain felt by the child

The mothers almost universally agreed that pain felt by the child was the greatest problem faced by the child. The pain felt by the child manifested in many mothers as being personal as stated by some mothers:

"When they are in pain it's like we're in pain because they are just kids and they don't understand."

The mothers associated pain in the tooth with terms such as "disturbed" and "angry." Most of the mothers felt that

pain in the teeth affected their children psychologically. As one mother put it, "pain changes her psyche, it makes her angry." The parents also stated that dental pain only highlighted the limitations of what they were able to provide for their children. More than one mother reported that the pain in the teeth was a constant reminder of their inability to provide care for their children and served as a trigger for deeper feelings of anger and frustration.

Oral hygiene of the child

The oral hygiene (including means of maintaining oral hygiene) was an important concern for the mothers. When asked about dental care, most of the mothers immediately associated it with oral hygiene. The mothers' responses reported the effects of displacement on the priorities given to oral hygiene. Inability to replace toothbrushes was a common theme with several mothers stating that they were using old worn out brushes. This problem was appreciated, especially in the words of one of the mothers who said:

"They used to brush their teeth 2 times per day but now when we came to Turkey they don't brush their teeth so now they only clean them with soap and water."

Gargling with salt water and washing the mouth with soap water were two methods that many of the mothers reported as their means of maintaining oral hygiene. The inability to buy oral hygiene products was best summarized by one of the mothers who said, "We can't afford to buy toothpaste, we receive soap as part of care packages."

DISCUSSION

Early childhood oral health is an issue that has received a great deal of attention in the literature over the past few years with an evidence suggesting that oral health could impact general health of children.^[16] The vulnerable nature of refugee populations makes it important to appreciate the impact that oral health could have on the quality of life of these children.^[17] The primary aim of this study was to assess the OHRQoL of Syrian refugee children living in Turkey. Unlike previous studies that have been conducted in resettled populations, this study chose to focus on a group that intended to return to their homeland.^[18-20]

The short-form P-CPQ-8 has been validated in Arabic and previously used to assess OHRQoL.^[12] However, while such a quantitative approach could assess overall patterns of oral health problems, it is not a proficient means of obtaining in-depth information and perspective. The use of qualitative interviewing has been proposed as a means of getting in-depth information from a relatively small sample.^[21,22] Previous studies in Arab populations have shown that mothers are traditionally better early

childhood oral health proxies than fathers.^[23] It was for this reason that the interviews focused solely on the mothers.

While studies on resettled populations have focused on communities continuing traditional oral health practices, and the difficulties they faced in integrating into their new homeland, our interviews highlighted the trouble parents were having to face with shortages of materials. The decision of parents to use soap and water to clean the teeth, for example, was a practice brought about by necessity and not habit. Maternal concerns about oral hygiene figured prominently in the interviews with mothers stating that they were trying their best to provide care to their children in the circumstances.

It was evident from both the P-CPQ-8 questionnaire and the focus group interview that the pain of their children was of the greatest concern to the parents. The association of words such as “anger,” “frustration,” and “change in psyche” with the term dental pain in the interviews suggested that dental pain may well serve as a trigger for more serious psychological issues. While the psychological problems faced by resettled refugees and their impact on oral health has been previously addressed,^[20,24,25] the impact on displaced populations merits further research.

The sense of frustration in the interviewed population was perhaps accentuated by the fact that most of the mothers came from families where at least one, if not both parents were well educated and were used to providing care for their children. Fear of being unable to take care of children has been previously reported in patients fleeing conflict zones although these have often been documented in greater detail in resettled populations with a fear of being denied existing health-care benefits in the host country.^[25,26]

The results of this study must be viewed in light of certain limitations. The small sample size and lack of multiple groups were due to the difficulties in returning to the region. Despite this, the study offers an insight into the oral health concerns of a temporarily displaced population that hopes to return to Syria.

CONCLUSION

Within the limitation of this study, it can be concluded that children who are refugees from the crisis in Syria face significant oral health challenges that adversely affect their OHRQoL. The parents interviewed in this study were aware of the importance of oral hygiene but emphasized their inability to look after their children's teeth. Further research into the effect of oral health on the overall physical health and psychological well-being of these children is necessary.

ACKNOWLEDGMENTS

The authors acknowledge with gratitude the support provided by the volunteers of the HAYAT foundation Kirikhan, Antakya, Turkey, for all their assistance during the conduct of this study.

FINANCIAL SUPPORT AND SPONSORSHIP

Nil.

CONFLICTS OF INTEREST

There are no conflicts of interest.

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