

## **AWARENESS, KNOWLEDGE AND ATTITUDE ON CLP AMONG ANTENATAL CLINIC ATTENDEES OF HOSPITALS AND THE PRIMARY HEALTH CARE IN QASSIM REGION**

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### **Abstract**

Background: Cleft lip and palate (CLP) deformity is associated with stigma, although education and understanding of the illness can help reduce it. Aim: The purpose of this research was to determine how well pregnant women knew about CLP. Materials and Methods: three hundred pregnant women were surveyed using a structured interview questionnaire for a cross-sectional descriptive study done at Obstetrics and Gynecology Hospital, Al Hayat National Hospital, Primary Health Care Clinics in Qassim region. The mean cumulative knowledge score and the extent of awareness were the primary indicators of success. Results: Subjects ranged in age from 25-34 years. 81.0%, 75% of the respondents said they have either heard or seen of CLP. 46% of respondents sourced their information about the CLP from the media. 46.3% of respondents showed sufficient understanding about CLP. Many respondents (64.3%) said they wanted to learn more about CLP. There was a statistically significant correlation between age and knowledge of the cleft lip [ $\chi^2 = 28.100$ ,  $p = 0.000$ ], and a significant relationship between occupation and knowledge of the cleft lip [ $\chi^2 = 26.149$ ,  $p = 0.000$ ]. Conclusion: The majority of respondents said they knew a lot about CLP. CLP were not completely understood, therefore, it is necessary for

mothers to improve their infants' quality of life by learning about the causes of CLP and receiving comprehensive education about the essential function of the orthopedic appliances to improve CLP.

**Key words:** Cleft lip and palate, Antenatal clinics, Knowledge, Public awareness, awareness, Pregnant women

## Introduction

Dental defects are common in children born with CLP, one of the most common craniofacial malformations. CLP, often known as a philtrum or cleft, is a birth condition in which the upper lip and roof of the mouth do not join properly. CLP, which be syndromic or non-syndromic, occurs in the early stages of growth due to unsuccessful or inappropriate fusion of tissues [1].

CLP incidence varies according to racial/ethnic background, geographic location, socioeconomic status, and cleft type. One in 500 Asians and Americans have been documented to have the disease. Unilateral CLP occurs more frequently on the left side than on the right, and males are twice as likely as females to be affected by the condition. With a prevalence of 1 in 70,000, Vander Woude syndrome is one of the most common autosomal dominant illnesses associated with CLP [2].

Conditions that may significantly influence the quality of life, such as additional loss of salivary secretion, more serious periodontal difficulties, and more orofacial and dental diseases, can be seen due to maxillary hypoplasia and mouth breathing in patients with CLP. Defects in the lip, alveolar process, teeth, and skeleton in the anterior-posterior, vertical, and transverse planes are all instances [3]. People with CLP often have missing teeth, either from birth or during their growth. Patients with CLP often experience difficulties with both oral hygiene and transverse and sagittal growth of the maxilla due to scar tissues in the palatal area. The transverse dimension of the arch, particularly in the anterior portion, decreases as a result [4].

Multidisciplinary care, including craniofacial surgery, dental and orthognathic treatment, speech and hearing intervention, and educational, social, and psychological evaluations, is typically necessary for people with CLP, even though the severity of the difficulties varies. Aesthetic and functional restoration of the mouth, as well as the promotion of normal speech and hearing development, the maintenance of good oral hygiene, and the enhancement of quality of life are the goals of medical and psychosocial interventions [5].

Patients with CLP, together with their families, communities, and healthcare systems, face severe physical and psychological challenges due to the condition. Psychological issues, such as depression, low self-esteem, and social anxiety, may be more common in children with CLP compared to children without CLP, causing significant psychological and emotional hardship for children with CLP and their families [6]. Awareness campaigns about potential environmental risk factors including alcohol and tobacco use during pregnancy and the postconceptional administration of folic acid or multivitamin supplements have been the mainstays of prophylactic interventions. The identification of predictive genetic risk markers for this disorder is vital, as no

established genetic counseling test can predict the possibility of couples having a child with NSCL-P [7].

### **Aim**

This study aimed to assess the level of awareness, knowledge and attitude of a large sample group of pregnant women who were visiting prenatal clinics of hospitals and primary health care in the Qassim region about the importance of early treatment approaches in patients with CLP.

### **Materials and Methods**

There were 300 pregnant women included in this cross-sectional descriptive study. After obtaining written consent A cross-sectional descriptive study of 300 pregnant women who visited prenatal clinics was conducted in Obstetrics and Gynecology Hospital, Al Hayat National Hospital, Primary Health Care Clinics in Qassim region.

Prior to the start of the trial, the necessary ethical approvals were obtained. A researcher-administered questionnaire was used to compile the data. In addition to collecting demographic data, the questionnaire probed respondents' perspectives on the root causes and potential remedies for CLP. In addition, 10 strategically placed questions were chosen to assess the knowledge, awareness, and attitude on CLP. Four of the questions in this survey were used to measure demographic characteristics including age, religion, occupation, and education, and the other six questions were used to measure information about CLP. The score for knowledge was calculated. A correct or erroneous response was assigned to the knowledge variable. Incomplete, inaccurate, or unknowable responses were marked as such. Each correct answer received a score of 1 and each erroneous response received a score of 0. A score below 50% was regarded to indicate insufficient understanding, while a score of 50% or higher indicated enough knowledge.

The Statistical Package for the Social Sciences [SPSS version 26] was used to analyze the data in this study p-value of 0.05 was considered statistically significant. The figures preparation was conducted using Microsoft Excel 2010.

1. Frequency, percentage, to identify the personal data and items
2. Chi-square test were conducted to examine the relationship

### **Results**

Three hundred pregnant mothers participated in the research. The majority of respondents are 25-34 years old, with a proportion of 46.3%, while the 35-44 years, 18-24 years, and over 44 years recorded 33.0%, 20.0%, and 0.7%, respectively. 98% of the respondents were Muslims, whereas only 2 % were Christians. The majority of respondents had [other] occupation with a percentage of 68.0%, while a teacher, a civil service, and a Merchant accounted for 15.0%, 11.7%, and 5.3%, respectively. Table [1] illustrated that the majority of respondents have [post-High school] education, with a percentage of 59.3%, while High school, elementary school, some high school,

i Unofficial, and some elementary school recorded 14.3%, 13.0%, 9.3%, 2.0%, 2.0%, respectively. Participants demographics are summarized in Table 1.

Figure [1] showed that the majority of the respondents had heard about the CLP with a percentage of 81.0%, while those who had heard about the CLP recorded 19.0%.

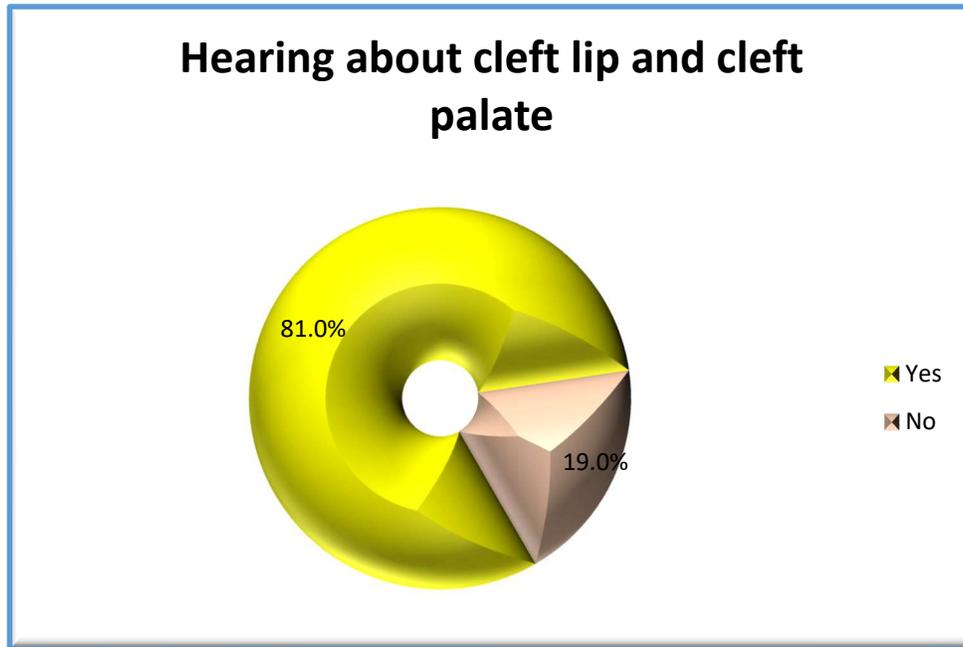


Figure 1: Hearing about cleft lip and cleft palate.

Figure [2] showed that the majority of respondents saw the CLP with a percentage of 75.0%, while those who did not see the CLP was 25.0%.

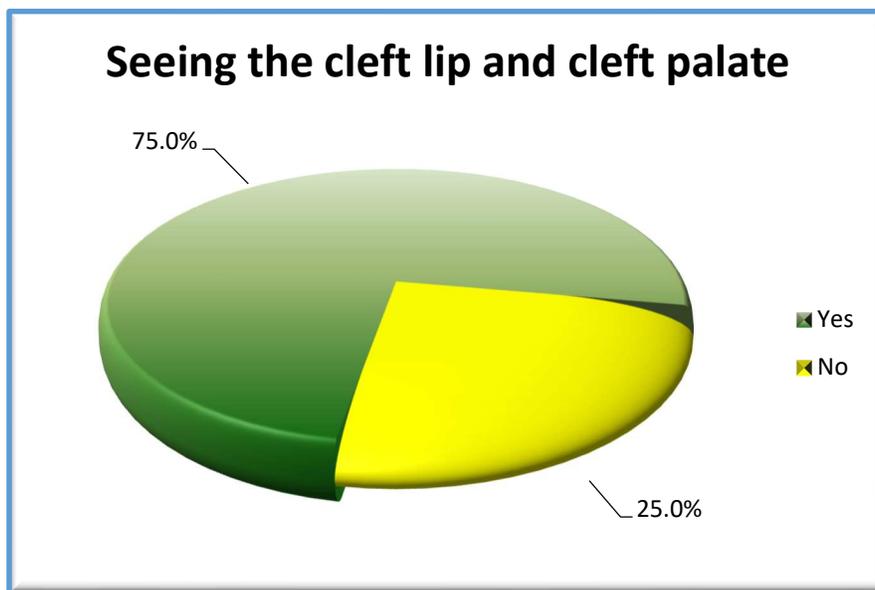


Figure 2: Seeing the cleft lip and cleft palate.

Figure [3] demonstrated that most of respondents sourced their information about the CLP from the media, 46.0%.

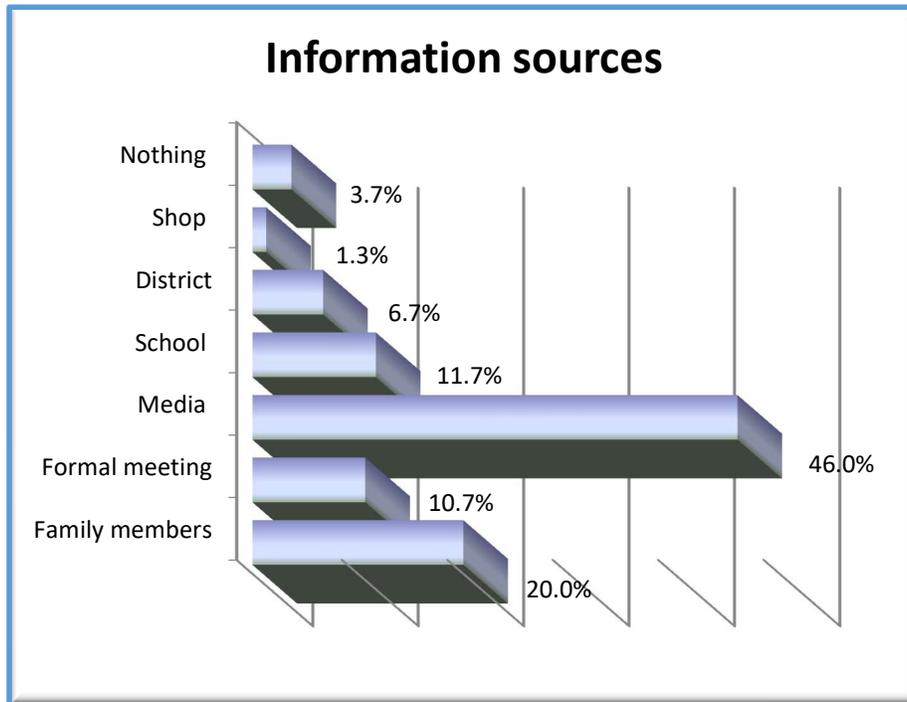


Figure 3: Information sources.

Figure [4] revealed that the majority of respondents defined the lip as a congenital defect in the lips, with a percentage of 46.3%.

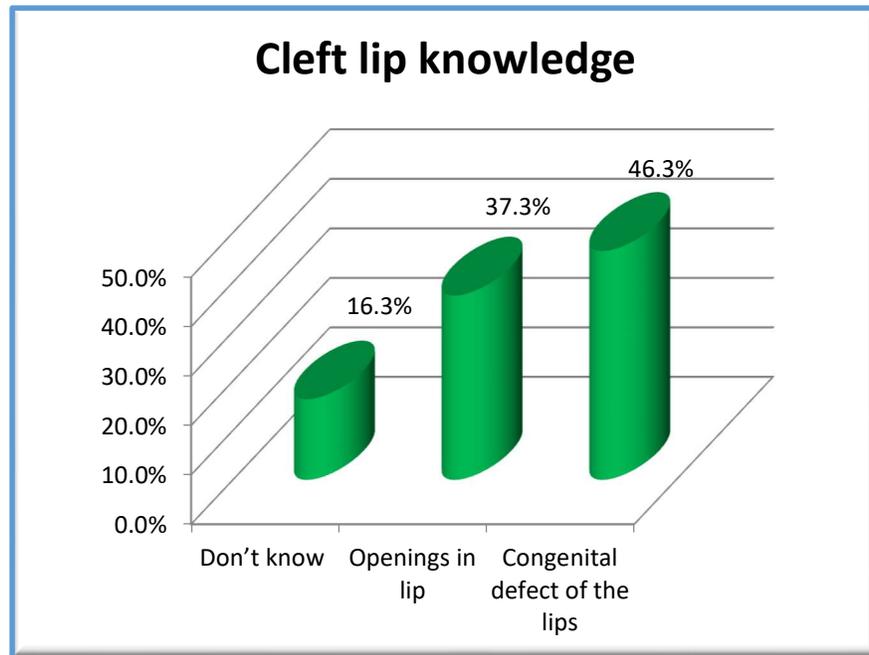


Figure 4: Cleft lip knowledge.

Figure [5] showed that most of respondents did not previously participate in general culture programs, 80.0%.

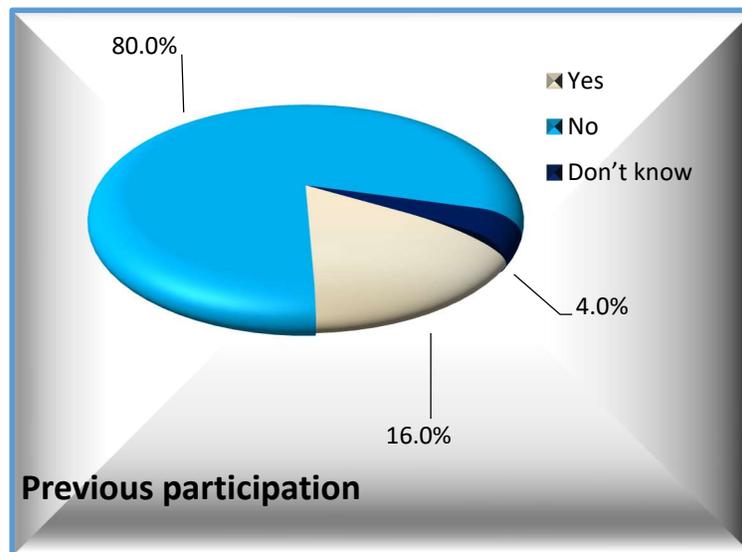


Figure 5: Previous participation in general culture programs.

Figure [6] revealed that the majority of respondents wanted to learn more about the CLP, with a percentage of 64.3%.

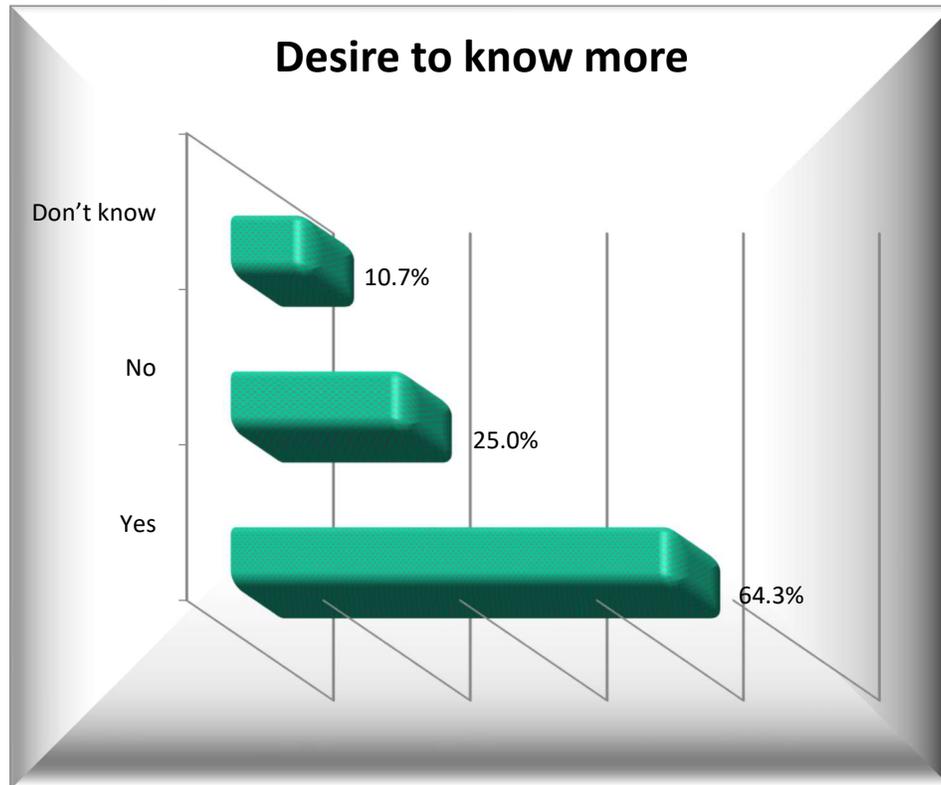


Figure 6: Desire to know more about cleft lip and cleft palate.

Table [2] showed that there was a statistically significant relationship between age and knowledge of the cleft lip [ $\chi^2 = 28.100$ ,  $p = 0.000$ ]. Table [2] also proved that there was a statistically significant relationship between age and the desire to learn more about the CLP [ $\chi^2 = 16.893$ ,  $p = 0.010$ ].

Table [3] demonstrated that there was a statistically significant relationship between occupation and knowledge of the cleft lip [ $\chi^2 = 26.149$ ,  $p = 0.000$ ]. Table [3] also proved that there was no statistically significant relationship between occupation and the desire to learn more about CLP [ $\chi^2 = 26.149$ ,  $p = 0.000$ ].  $\chi^2 = 9.128$ ,  $p = 0.167$ ].

## Discussion

CLP is preventable to some extent, and its surgical correction can largely achieve return to normalcy and satisfactory quality of life. Therefore, adequate knowledge and awareness about the causes, treatment and prevention of CLP may help to counter the negative beliefs and attitudes toward and even reduce the incidence of cleft [8]. Parents' knowledge about the CLP may likewise promote better health related behavior in their children [1]. Public awareness of these abnormalities has been demonstrated to improve treatment and prognosis. The purpose of this research was to gauge the general public's familiarity with and attitude toward CLP in the Qassim region. 75%, and 81% of the respondents in this series had seen or heard about CLP. However,

most respondents sourced their information about the CLP from the media, 46.0%. on the other hand, poor knowledge about CLP has been reported in many rural and urban Asian [9-11] and African [12] populations. Lack of knowledge of availability of repair is the most common cause of late presentation in Nepal. Cultural and religious factors affect perceptions and knowledge, with many ascribing the cause to superstitious beliefs [13-15].

Understanding the effects of treatment on quality of life may be greatly aided by providing parents or patients with information about the etiology, complications, and treatment plans of CLP. The majority of women [46.3%] in this survey correctly described CLP, however 37.3% offered an incorrect or inadequate explanation. These findings are consistent with those of other studies, while a cross-sectional study by Middleton et al. revealed that 18.4% of mothers lacked an adequate definition of CLP [16]. However, a high percentage of a correct definition of CLP was observed in two investigations of pregnant women in Nigeria and Saudi Arabia [14, 17].

In a Turkish study it was found that 17.2% of survey respondents have personal experience with CLP, while 83.8% have personal experience with CLP in general [8]. In a recent study conducted in Oman by Alawi et al. [6], 50% of the 739 participants reported knowing someone with CLP. Türker et al. [8] showed that the type of work one did has a significant impact on how much they know about people with CLP. Those with CLP sometimes have trouble communicating verbally, and doctors have seen that nasoalveolar molding applications can help even before a child is born. In line with our findings, Alawi et al. found that healthcare professionals generally had a deeper understanding of CLP [83.3%]. Of the people who took part in Türker et al. survey, 47.7% claimed to be unaware of CLP, while 52.3% claimed to be familiar with the topic.

Those who are familiar with CLP say they found out about it from various sources including the web, social networks, television, and even medical experts [8] and this was constituent in our study. Previous research [18-20] has shown that a lack of information is a major factor in the delayed presentation of CLP patients, and that delayed surgical procedures may negatively affect both the child's and his family's quality of life. Understanding the origins of this aberration and the available treatments is crucial for enhancing the physical and emotional well-being of CLP patients [11]. Informational resource for CLP When asked where they had learned about CLP, respondents most frequently cited the internet [21]. A study, however, indicated that CLP content on the internet is of low quality [22].

Genetic mutations/inheritance, gestational diabetes, and prenatal exposure to smoking, alcohol, medications, and chemicals have all been linked to an increased risk of CLP, though the exact cause of CLP remains unknown [23]. Inadequate and delayed delivery of appropriate care has been linked to an increased risk of numerous problems for children with CLP [24]. The public's recognition of CLP mental suffering in Saudi Arabia may improve how the condition is handled and help with their integration into society. However, the Saudi study [84.4%], the majority of people in this country [68.9%] were unaware that CLP could cause frequent middle ear infection and/or gradual hearing loss [17]. This is a significant finding because it may cause parents to wait

longer before taking their children with CLP to the doctor for treatment of ear infections if they are unaware that this is a real and serious complication of this congenital illness. The fact that surgery was chosen to treat CLP by 92.4% of the population is also noteworthy. A recent survey found that of the conditions addressed by plastic surgeons in Oman, CLP was the most popular among the general population [21].

We selected 10 items of the questionnaire to test knowledge in an attempt to obtain a more accurate level of knowledge. This study demonstrated that variations exist between the level of awareness and knowledge. We opined that using scored multiple items to test knowledge gives a more accurate index of knowledge. More studies with a larger sample will be required to validate the cumulative knowledge score. Of note is the strong association between occupation and level of knowledge demonstrated in this study.

## Conclusion

The majority of pregnant women said they knew a lot about CLP. Therefore, it is necessary that pregnant women receive thorough education about the essential role of the orthopedic appliances to correct CLP so that they can provide the best possible care for their infants. Managing CLP effectively calls for input from a wide range of specialists, knowledge of the factors that contribute to the development of CLP in newborns, and widespread dissemination of information about the pivotal role played by treatment in enhancing the quality of life for CLP infants. The clinical outcome in newborns' lives and the likelihood of a positive prognosis can be improved, for example, if expectant mothers are given anticipatory information about the possibility of their infants having CLP and additional support to commence treatment with the presurgical orthopedic appliances without delay. More public enlightenment and health education is needed to raise people's level of understanding and acceptance of children with CLP. Nurses working in community health and antenatal care should be encouraged to expand their knowledge of CLP. Clinics, especially prenatal care centers, should provide CLP pamphlets. The appropriate governmental and professional organizations should launch media campaigns across radio, television, and newspapers and create cleft support groups.

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Table 1: Demographic characteristics of participants [n=300]

<b><i>Variable</i></b>	<b><i>Frequency</i></b>	<b><i>Percent [%]</i></b>
<b><i>Age</i></b>		
<i>18-24 years</i>	<i>60</i>	<i>20.0%</i>
<i>25-34 years</i>	<i>139</i>	<i>46.3%</i>
<i>35 - 44 years</i>	<i>99</i>	<i>33.0%</i>
<i>Over 44 years</i>	<i>2</i>	<i>0.7%</i>
<b><i>Religion</i></b>		
<i>Islam</i>	<i>294</i>	<i>98.0%</i>
<i>Christianity</i>	<i>6</i>	<i>2.0%</i>
<b><i>Occupation</i></b>		
<i>Civil service</i>	<i>35</i>	<i>11.7%</i>
<i>Teacher</i>	<i>45</i>	<i>15.0%</i>
<i>Merchant</i>	<i>16</i>	<i>5.3%</i>
<i>Other</i>	<i>204</i>	<i>68.0%</i>
<b><i>Education</i></b>		
<i>Unofficial</i>	<i>6</i>	<i>2.0%</i>
<i>Some elementary</i>	<i>6</i>	<i>2.0%</i>

<i>Elementary school</i>	39	13.0%
<i>Some high school</i>	28	9.3%
<i>High school</i>	43	14.3%
<i>Post-High school</i>	178	59.3%

Table 2: The relationship between age, knowledge of cleft lip and desire to learn more about CLP

Variable	Age				X <sup>2</sup>	p. value	
	18-24	25-34	35 - 44	Over 44			
<b>Knowledge of cleft lip</b>	Don't know	20.0%	13.7%	16.2%	100.0%	28.100	0.000**
	Openings in lip	43.3%	46.0%	22.2%	0.0%		
	Congenital defect	36.7%	40.3%	61.6%	0.0%		
<b>Desire to learn more</b>	Yes	53.3%	75.5%	54.5%	100.0%	16.893	0.010**
	No	30.0%	17.3%	33.3%	0.0%		
	Don't know	16.7%	7.2%	12.1%	0.0%		

\*significant at the level  $\geq 0.05$  \*\* significant at the level  $\geq 0.01$

Table 3: The relationship between occupation, knowledge of cleft lip and desire to learn more about CLP

Variable	Occupation				X <sup>2</sup>	p. value	
	Civil service	Teacher	Merchant	Other			
<b>Knowledge of cleft lip</b>	Don't know	5.7%	4.4%	25.0%	20.1%	26.149	0.000**
	Openings in lip	25.7%	64.4%	25.0%	34.3%		
	Congenital defect	68.6%	31.1%	50.0%	45.6%		
<b>Desire to learn more</b>	Yes	57.1%	80.0%	62.5%	62.3%	9.128	0.167
	No	37.1%	15.6%	25.0%	25.0%		
	Don't know	5.7%	4.4%	12.5%	12.7%		

\*significant at the level  $\geq 0.05$  \*\* significant at the level  $\geq 0.01$

Figure legend

Figure 1	Hearing about cleft lip and cleft palate.
Figure 2	Seeing the cleft lip and cleft palate.
Figure 3	Information sources.
Figure 4	Cleft lip knowledge.

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Figure 5	Previous participation in general culture programs.
Figure 6	Desire to know more about cleft lip and cleft palate.