

## Awareness Regarding Clubfoot in Parents

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### ABSTRACT

**Objective:** To assess awareness and knowledge regarding club foot in parents of children with clubfoot.

**Methods:** This cross sectional study was conducted in Dow University hospital among 105 parents of children who have club foot and were either under treatment or at the completion of treatment. Using a well-designed questionnaire face-to-face interview of the parents was done. Research team members themselves got the questionnaires filled

**Results:** 113 parents participated in the study. Out of them 86(72.3%) knew that what is clubfoot, 46(38.7%) replied that they don't know what actually the clubfoot is. Regarding use of Internet for medical problems, 80 (67.2%) replied that they don't use Internet whereas only 30(67.2%) uses Internet for information regarding health issues. When the parents were asked that how they came to know that club foot is treatable and by whom they were referred to our center, 74(62.2%) were referred by the parents, 25(21.0%) by gynecologist, 9(7.6%) and 5(4.2%) by paramedical staff and health workers when the respondents were asked regarding any information through television and newspaper 105(88.2%) replied that they don't get any information whereas only 8 (6.7%) replied positively. Only 2(3%) respondents said that they have attended seminar regarding clubfoot whereas 111(97%) said they have never attended the same. 92(77.3%) respondents said that they didn't get any information regarding clubfoot by any health workers whereas only 20(16.8%) got information from public health workers.

**Conclusion:** Clubfoot is a common congenital foot anomaly but due to lack of awareness it has been neglected resulting in a lifelong disability. It is a need of hour that awareness regarding club foot should be increased and health care providers should make good communication with parents so that they could understand what is the problem, how it will be managed and how long to keep in follow up in order to avoid recurrence.

**Key Words:** Clubfoot, Ponseti technique

### INTRODUCTION

Clubfoot is a congenital structural deformity, characterized by hind foot equinus, mid foot cavus and forefoot adduction [1]. Untreated clubfoot may cause lifelong disability, impaired function and movement which may result in a painful feet [2]. Clubfoot has a negative impact on life; if it is left untreated it may cause dependency on others for performing the daily activities and causes

difficulties in ambulation. It causes heavy economic burden not only on the family but on the country as well. There are certain psychological problems, which may arise due to structural differences in the children, they feel themselves handicap and inferior to other children [3]. Incidence of clubfoot all over the world is One in 750 children. 80% of total clubfeet children belong to middle and low-income countries [4]. Clubfoot is a treatable congenital anomaly and treatment is widely available. Ponseti treatment centers have been established in 113 out of 193 united nation members' countries [5]. However there are certain factors that act as barriers in delivery of proper treatment including lack of awareness, financial constrains and lack of resources [6,7,8]. Pakistan being one of those countries, where incidence of club foot is one in

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every 1000 live births is facing the problem due to limited medical facilities and resources .In developing countries due to lack of awareness, knowledge and poor access to the health care facilities, mostly children fail to get treatment. These untreated clubfoot children face lifelong disability, because they are not able to wear normal shoes, and this disability may end up living as beggars in streets [9]. Majority of patients may not get access to the treatment and those who do start treatment, miss their appointments, leave the treatment some times in casting phase and may leave at bracing phase [10].

The purpose of this study is to assess the knowledge of parents regarding clubfoot, treatment and complications, so that the barriers can be identified that parents of the children with clubfoot encounter in complying with clubfoot treatment.

## METHODS

A quantitative cross sectional survey was conducted at Clubfoot clinic at Dow university hospital/ Dow international Medical College. The data was collected during January and February 2017. Participants were the parents of the children who had either completed the treatment or under treatment in our clinic. A semi-structured questionnaire was developed for data collection, which focused on understanding the knowledge, Perception and experience related to clubfoot. Questionnaire was designed in Urdu (national language) and Sindhi, Balochi and Punjabi (regional languages), which were later translated in English for analysis. It consisted Questions regarding demographic data, working status, income of the parents, parent's knowledge about club foot, source or referral for treatment of clubfoot, communication between parents and the physician, complications and consequences of untreated club foot, relapses in club foot and its treatment methods of treating a club foot, knowledge about the brace management, knowledge regarding Ponseti technique of Sampling method was purposive. Written and verbal consent from each participant was taken before conducting interview. Parents were approached as a group as they were waiting for treatment, which was then approached, individually to determine whether they met

inclusion criteria or not. The researchers completed the questionnaires on behalf of the parents. Data analysis was carried out using SPSS version 16.

## RESULTS

113 parents participated in the study. Out of them 86(72.3%) knew that what is clubfoot, 46(38.7%) replied that they don't know what actually the clubfoot is. Regarding use of Internet for medical problems, 80(67.2%) replied that they don't use Internet whereas only 30(67.2%) uses Internet for information regarding health issues. When the parents were asked that how they came to know that club foot is treatable and by whom they were referred to our center, 74(62.2%) were referred by the parents, 25(21.0%) by gynecologist, 9(7.6%) and 5(4.2%) by paramedical staff and health workers when the respondents were asked regarding any information through television and newspaper 105(88.2%) replied that the don't get any information whereas only 8(6.7%) replied positively. Only 2(3%) respondents said that they have attended seminar regarding clubfoot whereas 111(97%) said they have never attended the same. 92(77.3%) respondents said that they didn't get any information regarding clubfoot by any health workers whereas only 20(16.8%) got information from public health workers. Regarding knowledge about Ponseti technique only 14(11.89%) respondents replied positively, 98(82.4%) replied that they don't know about Ponseti technique. When respondents were asked that which method of treatment is preferable surgical or Ponseti, 90(57.6%) preferred Ponseti technique where as 23(19.3%) preferred surgical method for clubfoot management. Regarding brace management 57(47.9%) respondents said that they know that their child has to wear brace for 4 years where as 56(47.1%) said that they don't know about brace protocol. In case of recurrence 40 (33.6%) respondents knew that treatment can be repeated once again, where as 72(60.5%) people didn't know this fact. Only 23(19.3%) respondents had knowledge regarding club foot before their child got this problem where as 91(76.5%) respondents had no knowledge about club foot prior their child got this problem.

Demographic features of the respondents

**Table I: Demographics (n = 113)**

<b>Variables</b>	<b>n = 113 n (%)</b>
Gender	
Male	83 (39.9)
Female	125 (60.1)
Care taker Status	
Father working	91 (76.5)
Mother working	20 (16.8)
Others	2 (1.7)
Family income	
Less than 10000	12 (10.1)
10000-30000	73(61.3)
Above 30000	28(23.5)
Family History	
Yes	67(56.3)
No	46 (38.7)

<b>Awareness about Club Foot</b>	
Yes	86(72.3)
No	27(22.7)
<b>Internet Users</b>	
Internet Users	33(27.7)
Non-Internet Users	80(67.2)
<b>How did you know that club foot is treatable</b>	
Parents of a club foot child	74(62.2)
Gynaecologist	25(21.0)
Pediatrician	9(7.6)
Nursing staff	5(4.2)
<b>Have you ever got any information through television and newspaper?</b>	
Yes	8(6.7)
No	105(88.2)

<b>How long you took after the birth of your child to start treatment</b>	
Within one year	26(21.8)
Between 1-5 years	80(67.2)
After 5 years	7(5.9)
<b>Which method is preferable for club foot</b>	
Ponseti	23(19.3)
<b>Do you know in case of recurrence of deformity, treatment might be repeated once again</b>	
Yes	57(47.9)
No	56(47.1)

**DISCUSSION**

Out of 113 respondents, 86(72.3%) replied that they know about clubfoot, 14(11.89%) knew about Ponseti technique, 57(47.9%) respondents knew the fact that their children have to wear brace for 4 years. These figures shows that those parents

whose children are under the stage of casting or brace, do not understand clearly about definition of the clubfoot, Ponseti and the protocol of brace management. The reason can be either the communication gap between the parents and physician or it can be either the low education level

of the parents that they are not able to understand the physician's instructions. This communication gap between the parents and physician, may result in poor compliance by the parents and for the same reason desired results are not achieved [11]. This is also evident from a study done in Bangladesh which shows that 89.3% (91) respondents were able to understand the information correctly where as 10.7% [10] were able to understand the information correctly [12]. In order to achieve good outcome of the treatment a good relationship is essential to develop mutual understanding and better compliance [13]. 76.5% respondents said that they didn't know about club foot before their child develop this problem, similarly 97% said they have never attended any seminar or public awareness program regarding clubfoot. 77.3% respondents said that they didn't get any information regarding clubfoot by any health workers. This data shows lack of awareness in general population and up to some extent in health care providers specially general practitioner, paramedical staff and lady health workers. A study by Burfat A 2013 in Indus hospital shows that there were misconception regarding club foot not only in general community but in lady health workers as well participating in the study. There is a need to increase awareness in general community members as well as in health care providers [13]. Regarding brace management 56(47.1%) said that they don't know about brace protocol. In case of recurrence 72(60.5%) people didn't know that treatment can be repeated once again, these figure shows communication gap between physician and caretakers. A good health provider and care taker communication includes exchange of information and to clarify issues and procedures clearly so that the care takers become more knowledgeable, feels satisfied, confident and have positive belief about their treatment and more likely to comply with treatment [14,15].

Regarding education level and monthly income, majority of the parents (61.3%) belong to a group who earn 10000-30000 per month, where 45.4% father's were illiterate, 31.9% were middle pass, 91% families had only fathers were working to earn the family. A metaanalysis done in studies income of the caretakers act as a potential barrier to the better outcome of the treatment. For poor people due to lack of access to resources and travel expenses, and money loss by taking time off from

job, it is very difficult for them to continue this prolong treatment [16-22].

## CONCLUSION

Clubfoot is a common congenital foot anomaly but due to lack of awareness it has been neglected resulting in a lifelong disability. It is a need of hour that awareness regarding club foot should be increased and health care providers should make good communication with parents so that they could understand what is the problem, how it will be managed and how long to keep in follow up in order to avoid recurrence.

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