Oral abstract No: O-045

“CHANGES IN THE LEVEL OF KNOWLEDGE, ATTITUDE AND PRACTICE OF COMMUNITY MEMBERS REGARDING LEPROSY AND DIABETES MELLITUS THROUGH INTENSIVE COMMUNITY SENSITIZATION PROGRAM.”

Introduction

WHO-Facts about diabetes worldwide

Diabetes is predicted to become the seventh leading cause of death in the world by the year 2030. About 347 million people worldwide have diabetes.

India has the dubious distinction of being the diabetes capital of the world.

According to the International Diabetes Federation, 61.3 million people in India had diabetes in 2011. That figure is projected to rise to 101.2 million by 2030.

IDF data reveal that India has more diabetes than the United States. In fact, India is ranked second in the world in diabetes prevalence, just behind China.

Tamil Nadu State

The Indian Council of Medical Research’s INDIAB (India-diabetes) study found that Tamil Nadu has the highest number of diabetics in the country, with 9.8 per cent of the state’s population (42 lakh people) living with the disease, 30 lakh people in the state are at high-risk of developing diabetes.
Overview of Leprosy and diabetes WHO Defines :

**Leprosy**
Leprosy is caused by a slow-growing bacillus, *Mycobacterium leprae*. It is transmitted via droplets from the nose and mouth of untreated patients with severe disease, but is not highly infectious. If left untreated, the disease can cause nerve damage, leading to muscle weakness and atrophy, and permanent disabilities.

**Diabetes**
Diabetes is a chronic disease, which occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. This leads to an increased concentration of glucose in the blood (hyperglycaemia).

- Type 1 diabetes is characterized by a lack of insulin production and
- Type 2 diabetes results from the body's ineffective use of insulin.

**Relationship between Leprosy and diabetes**
- Leprosy and diabetes are obviously different disease processes. Both diseases may result in diminished sensation in the feet.
- The diminished sensation increases the risk for both painless injury and potential ulceration or wounds.
Background of the study

- SIH-RLC, Karigiri has been implementing various health education programs through various methods for more than five decade to reduce burden of leprosy in four blocks.

- During the year 2007-2011 an intensive health education given to sensitize community members to minimize stigma & discrimination and increase knowledge on leprosy and lifestyle disease including diabetes mellitus in 30 panchayat villages of Katpadi & Gudiyatham block of Vellore District India.
Karigiri strategies on Community- Based Management of Diabetes

**Primary care**
- **Mobile Clinics**
  - Screening for DM, Medication
  - Monitoring control, Minor complications, Referral to FRU

**Secondary care**
- **First Referral Units (FRUs)**
  - Screening and diagnosis of DM
  - Baseline work-up and risk assessment
  - Monitoring control & management of DM
  - Management of minor complications
  - Footwear / aids / appliances
  - Referral to higher centers (when required)

**Tertiary care**
- **Karigiri Base Hospital**
  - Mgt. of major complications
  - In-patient care
  - Foot wear / Prosthesis

**Rehabilitation**
- Identification & listing
- Baseline assessment (TT)
- Risk categorization
- Prioritization
- Home based care (POID)
- Foot care
- Monitoring meds / compls.
- Aids & appliances
- Patient / family education
- ADL / BFE
- SHG membership
- Govt. entitlements for PWDs
- IGP & livelihood

**Referrals**
- from Community Health workers / volunteers for testing
- Govt. PHCs
- Taluk Hospital
- GVMCH, CMCH,
Aim & Methodology of the Study

Objectives: To assess the level of Knowledge Attitude Practice (KAP) among community members on leprosy compare to diabetes mellitus.

Research Design: Cross-sectional study conducted at Tamil Nadu.

Instrument: A semi-structured questionnaire was developed and used to assess KAP on leprosy and diabetes for the study.

Questionnaire consists 10 subjects with objective type used for Assessing KAP on leprosy and diabetes diseases. Data collected by trained community health workers monitored by technical staff.

Sample Size: 1585 selected from 78428 population in the service area of Gudiyatham block, 1585 samples from 33028 population of Katpadi block of Vellore District randomly selected among the total household to collect data for the study.
<table>
<thead>
<tr>
<th>Q</th>
<th>Knowledge Attitude Practice</th>
<th>N=3170</th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Response</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>Cause of Leprosy</td>
<td>1812</td>
<td>57.2</td>
<td>1358</td>
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<td>2</td>
<td>Early Signs of Leprosy</td>
<td>1649</td>
<td>52.0</td>
<td>1521</td>
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<td>3</td>
<td>Mode of Spread</td>
<td>1330</td>
<td>42.0</td>
<td>1840</td>
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<tr>
<td>4</td>
<td>Leprosy is curable</td>
<td>1532</td>
<td>48.3</td>
<td>1638</td>
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<tr>
<td>5</td>
<td>Invite leprosy affected at home</td>
<td>1930</td>
<td>60.9</td>
<td>1240</td>
</tr>
<tr>
<td>6</td>
<td>Offer water/vessels to Leprosy patients</td>
<td>1930</td>
<td>60.9</td>
<td>1240</td>
</tr>
<tr>
<td>7</td>
<td>Purchase vegetable from leprosy patients</td>
<td>1716</td>
<td>54.1</td>
<td>1454</td>
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<tr>
<td>8</td>
<td>Marital relationship with family of leprosy affected</td>
<td>1214</td>
<td>38.9</td>
<td>1956</td>
</tr>
<tr>
<td>9</td>
<td>Treatment of Leprosy</td>
<td>1861</td>
<td>58.7</td>
<td>1309</td>
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<tr>
<td>10</td>
<td>Place of Treatment</td>
<td>2710</td>
<td>85.4</td>
<td>460</td>
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### Level of Knowledge Attitude Practice among community on Diabetes

<table>
<thead>
<tr>
<th>Q</th>
<th>Knowledge Attitude Practice n=3170</th>
<th>Correct</th>
<th>Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Response</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>Meaning of Diabetes</td>
<td>1918</td>
<td>60.5</td>
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<tr>
<td>2</td>
<td>Risk factors of DM</td>
<td>2846</td>
<td>89.7</td>
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<tr>
<td>3</td>
<td>Symptoms of DM</td>
<td>1768</td>
<td>55.7</td>
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<tr>
<td>4</td>
<td>Health seeking behavior</td>
<td>2775</td>
<td>87.5</td>
</tr>
<tr>
<td>5</td>
<td>Can DM be completely cured?</td>
<td>1675</td>
<td>52.8</td>
</tr>
<tr>
<td>6</td>
<td>Complication due to DM</td>
<td>2830</td>
<td>89.2</td>
</tr>
<tr>
<td>7</td>
<td>Can prevent DM</td>
<td>1983</td>
<td>62.5</td>
</tr>
<tr>
<td>8</td>
<td>Can control DM</td>
<td>2611</td>
<td>82.3</td>
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</table>
Results – Community level of Knowledge on “Leprosy/Diabetes cure”

Comparison of Leprosy /Diabetes

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Leprosy</th>
<th>Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cure (Yes)</td>
<td>1532 (48.2%)</td>
<td>1675 (52.8%)</td>
</tr>
<tr>
<td>Cure (No)</td>
<td>1638 (51.6%)</td>
<td>1495 (48.4%)</td>
</tr>
<tr>
<td>Total</td>
<td>3170 (100%)</td>
<td>3170 (100%)</td>
</tr>
</tbody>
</table>

X² = 18.99  p=0.000 (p=1.335144 E-05)

Percentage of respondents who had knowledge about cure is higher among diabetes affected than leprosy affected
Comparing KAP score of the community on leprosy and diabetes (n=3170)

Chi square = 146.18 d.f = 1. \( P = 0.00 \)

There is significantly higher proportion of people with KAP score of > 50% among leprosy than diabetes.
Conclusion and discussion

- The study reveals that the overall level of KAP on Leprosy is better than Diabetes among the community members. The levels of community knowledge on Diabetes Mellitus cure is much higher than leprosy.

- Knowledge alone will not change attitudes or influence behavior. The role of literacy about the diseases is important in improving health seeking behaviour.

- Long-term sustained health education approach to community members is an appropriate strategy to increase knowledge about the facts of leprosy and diabetes to improve voluntary reporting, health seeking behavior and disseminating information about the services and facilities available for leprosy and diabetes to all community members.

- Since diabetes mellitus and leprosy cause impairments that are similar it is recommended that increase knowledge about both the diseases among the community will prevent impairment and disability.
Conclusion and challenges cont..

- Diabetes related disability is on the rise in rural areas

- Health promotion on lifestyle modifications targeting various groups using different strategies is vital to minimize the risk of developing disease

- Improving access to early diagnosis and optimal management of diabetes is critical to preventing early onset of complications and disability specially in rural areas

- Developing community-based strategies to prevent and manage diabetes related disability is essential in rural areas

- Lobbying with the Govt. to strengthen health systems is key to sustainable services

- An “inclusion of diabetes in leprosy program” one such model.... lot more needs to be done