Treatment seeking behavior of diabetic patients with special emphasis on follow-up in the public health facilities in Pudukottai District, Tamilnadu, India

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**BACKGROUND**

- To tackle the rising burden of Non Communicable Diseases (NCD) which are leading cause of death (60%) and disability in India¹, the Government of Tamil Nadu through World Bank aided Tamil Nadu Health Systems implemented NCD Intervention Programme in 32 districts of the state in 2011.

- Opportunistic screening of hypertension, diabetes mellitus (DM), breast cancer and cervical cancer are done for individuals 30 years and above. For diabetes, screening is done by Random Blood Sugar test and diagnosis by Fasting and 2hr-post prandial Blood Sugar tests.²

**PROBLEM STATEMENT & ANALYSIS**

- More than 25 thousand people were screened and started on treatment in Pudukottai district, however, the information on continued follow-up and treatment is limited.

**OBJECTIVES**

- To learn about treatment seeking behavior of patients from the perspective of key service providers – NCD staff nurses
- To identify the proportion of patients in different patterns of follow-up for treatment of DM in the health facility where they got enrolled.
- To find out the motivating factors for patients who are on regular follow-up for treatment of diabetes mellitus.
- To find out the major reasons of irregular follow-up or lost to follow-up during treatment of diabetes mellitus in the government health facility.

**STUDY AREA**

- 13 General Hospitals, 13 Block PHCs, 41 Addl. PHCs & 1 Urban PHC in Pudukottai District, Tamil Nadu, India

**METHODOLOGY**

1. A Group Discussion with 58 NCD staff nurses
2. Analysis of follow-up patterns using clinic cards of those who were registered b/w Jan 2014 - Mar 2014
3. Telephonic interview of 90 conveniently chosen diabetic patients using semi-structured questionnaire

Valid treatment cards registered during Jan 2014 to Mar 2014 (N=729) were categorized into four, based on different follow-up patterns:

- **Regular**: Patients who visited at least once in two months during the period Jan 2014 to Apr 2015 to receive drugs
- **Irregular**: Patients who visited, but did not appear for three or more consecutive months in the period from Jan 2014 to Apr 2015 to receive drugs
- **Lost to follow-up within 3 months**: Patients who visited in first 3 months after registration but did not appear after that in the period Jan 2014 to Apr 2015

**RESULTS**

1. **Group Discussion with NCD staff nurses**

   - “Patients worry about losing one day work salary if they have to visit health facility in the morning hours. So they appear only after their conditions worsen.”
   - “Old patients are not able to visit, and therefore they send a proxy to receive drugs. Proxies are not accounted and considered as defaulters.”
   - “Some patients visit two or more health facility to receive drugs. So the patient gets registered twice and becomes irregular in follow-up in both facilities.”

2. **Analysis of monthly follow-up visits using patient clinic cards**

<table>
<thead>
<tr>
<th>No of patients (N=729)</th>
<th>216 (29.63%)</th>
<th>240 (32.92%)</th>
<th>189 (25.93%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular</td>
<td>114</td>
<td>154</td>
<td>98</td>
</tr>
<tr>
<td>Irregular</td>
<td>36</td>
<td>60</td>
<td>41</td>
</tr>
<tr>
<td>Lost within 3 months</td>
<td>66</td>
<td>66</td>
<td>21</td>
</tr>
<tr>
<td>Lost after 3 months</td>
<td>90</td>
<td>45</td>
<td>60</td>
</tr>
</tbody>
</table>

3. **Interview of diabetic patients (n=90)**

   a. **Average cost for travel to health facility (up & down)**

<table>
<thead>
<tr>
<th></th>
<th>Regular</th>
<th>Irregular</th>
<th>Lost within 3 months</th>
<th>Lost after 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.38</td>
<td>18.75</td>
<td>15.20</td>
<td>23.33</td>
</tr>
</tbody>
</table>

   b. **Main reasons for different patterns of follow-up**

   - Regular: “If I don’t take medicine regularly, then my health condition worsens” (60%)
   - Irregular: “Medicines from govt. facility are poor in quality, so I take medicine from outside” (30%)
   - Lost within 3 months: “I visited the village temporarily” (35%)
   - Lost after 3 months: “I visit only when I have problems” (20%)

   c. **46.7% of irregular & lost to follow-up patients (n=60) visit other health facilities for treatment**

**CONCLUSION**

- As per records, only 30% of patients are regular on follow-up
- Outpatient allergy department timings and cost of travel are few important factors determining regularity of patients. Patients have tendency to visit hospital only when conditions worsen.
- Though 70% (N=729) of patients are irregular and lost to follow-up, 46.7% (n=60) of interviewed patients seek treatment from other facilities.