Performance Of The Medication Counseling Center In Manipal Teaching Hospital: A Follow Up Study

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ABSTRACT

Objective: Non-compliance to drug therapy is a common problem worldwide. Providing counseling to the patients regarding their medication is a better means to improve patient compliance. The present study evaluated the performance of the Medication counseling center in Manipal Teaching Hospital, Pokhara, Nepal.

Methods: The filled medication counseling documentation forms during the period of three years (September 2004 to September 2007) were analyzed. The data obtained were entered in a Microsoft Excel spread sheet and were analyzed.

Results: Altogether, 1105 patients were counseled (as per the Omnibus Budget Reconciliation Act -1990 guidelines) by the center from September 2004 till August 2007. Females comprised 51% of the patients who received counseling. Nearly half of the counseled patients were from the Department of Otorhinolaryngology. Nasal spray was the most commonly used counseling aid (44.48 %). A majority of patients were counseled regarding the dosage form of the medication (97.29%), the dosage regimen (96.38%), the description of the medicine (96.02%), the route of administration (95.84%), duration of therapy (90.41%) and storage conditions (80.45%). Nearly 6-10 minutes were spent while counseling one third of the patients. In general, patients with modified drug delivery system, such as the metered dose inhaler and dry powder inhalers, were counseled more frequently.

Conclusion: It can be concluded that the Medication counseling center in the Manipal Teaching Hospital plays an important role in educating the patients regarding safe and effective use of their medications.

Practice implications: In resource limited countries like Nepal, pharmacists can provide counseling to the patients through medication counseling centers. This may in turn improve patient adherence, which is one of the common causes for therapeutic failures in countries like Nepal.

Key words: Nepal, Non-compliance, Patient counseling.

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Introduction
Non-compliance to drug therapy is a common problem worldwide. The problem of non-compliance is documented even in developed countries. Evidence suggests that non-compliance can lead to adverse drug reactions (ADRs) [1] and therapeutic failures [2]. There are several reasons for non-compliance. The most common reasons include ADRs due to medication, poor understanding of instructions, the cost of medications, frequent administration, etc[3],[4],[5]. Several strategies can be taken to improve patient compliance. One of the best means is the counseling of the patient by the pharmacists. Several studies have acknowledged that counseling by pharmacists can improve the patient’s understanding about medication and lifestyle modifications[6],[7],[8]. Patient counseling is defined as providing medication related information orally or in written form to the patients or their representatives, on topics like direction of use, advice on side effects, precautions, storage, diet and lifestyle modifications[9]. The ultimate goal of counseling is to provide information directed at encouraging safe and appropriate use of medications, thereby enhancing therapeutic outcome[10]. The concept of patient counseling is very new in South Asia. One study from the neighbouring country, India, evaluated the impact of counseling by pharmacists[11].

In Nepal, due to poor literacy rates, lower economy and various other reasons, there are inadequate resources for patients to get information about their medicine. Moreover, there are no patient information leaflets in the pharmaceutical products manufactured by the Nepalese companies. Even while dispensing the medication, the retail Pharmacists do not provide adequate information to the patients. Even the Doctors and Nurses do not spent adequate time in counseling the patients. Manipal Teaching Hospital (MTH) is the first hospital in Nepal to set up a Medication Counseling Center (MCC) in Nepal. The counseling is done as per the Omnibus Budget Reconciliation Act -1990 (OBRA-90)[12]. The preliminary evaluation of the MCC after the initial six months of functioning, concluded that the medication counseling center can play a definite role in enhancing the patient’s understanding about the medications and the disease pattern, which in turn, may improve patient compliance[13]. Successively, a number of initiatives have been carried out to improve drug use situations in MTH. A hospital drug and therapeutics committee (DTC) was formed, consisting of staff from the departments of the hospital and the clinical pharmacy, pharmacology, medicine, administration and other clinical departments. The DTC has undertaken a number of initiatives to improve the prescribing of medicines[14]. Restricting the number of brands in the hospital pharmacy and creating a hospital drug list, were some of the initiatives carried out[15]. The department of pharmacology runs a drug information and pharmacovigilance center (DIPC) in the teaching hospital. The DIPC also introduced a Continuing Pharmacy Education (CPE) program for the pharmacists working in the hospital. The CPE focused mainly on diseases like diabetes, hypertension, asthma etc, where the pharmacists need to know more while counseling the patients in the MCC[16]. The impact of these initiatives on the functioning of the MCC was not studied. Hence, the present study was carried out.

The objectives of the present study were
1. To study the demographic details of the patients visiting the medication counseling center
2. To study the therapeutic category of the drugs about which the patients were counseled
3. To study the counseling and compliance aids used by the pharmacists during the counseling process
4. To study the content of counseling provided to the patients
5. To study the time spent by the pharmacists in counseling the patients
Methods

The filled medication counseling forms [Table/Fig 1] during the period of three years (September 2004 to September 2007) were analyzed. The data obtained were entered in a Microsoft Excel spreadsheet and analyzed as per the study objectives.

Results

Altogether, 1105 patients were counseled during the study period. Among these patients, a majority [51% (n=566)] were females. Among the total patients, [49.5% (n=547)] were married. The age distribution of the patients who received counseling is given below in the [Table/Fig 2].

<table>
<thead>
<tr>
<th>Age group</th>
<th>Total number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10 yrs</td>
<td>39</td>
<td>4</td>
</tr>
<tr>
<td>11-20 yrs</td>
<td>165</td>
<td>15</td>
</tr>
<tr>
<td>21-30 yrs</td>
<td>248</td>
<td>22</td>
</tr>
<tr>
<td>31-40 yrs</td>
<td>152</td>
<td>14</td>
</tr>
<tr>
<td>41-50 yrs</td>
<td>119</td>
<td>11</td>
</tr>
<tr>
<td>51-60 yrs</td>
<td>138</td>
<td>12</td>
</tr>
<tr>
<td>61-70 yrs</td>
<td>121</td>
<td>11</td>
</tr>
<tr>
<td>&gt; 70 yrs</td>
<td>69</td>
<td>6</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>54</td>
<td>5</td>
</tr>
</tbody>
</table>

The departments from where the patients came to the MCC were studied. The details are shown in [Table/Fig 3].

Most of the patients who visited the MCC were directed by the pharmacists (62.3%) and then by the doctors (12.9%). However, 7.2% of the patients visited, based on their own interest. The therapeutic classifications of the drugs counseled by the pharmacists in the MCC are given in [Table/Fig 4].
Most of the drugs about which counseling was given were of oral dosage form (48.1%), followed by inhalation medications (34.14%), topical agents (14.8%) and few (0.41%), which belonged to the parenteral dosage forms. The details of dosage form of the counseled drugs are shown in [Table/Fig 5].

The pharmacists provided counseling to the patients directly in a private space. Sometimes the counseling was given to the patient parties as well. The details of the receivers of the counseling are given in [Table/Fig 7].

The various points covered while counseling the patients are studied. The details are given in [Table/Fig 8].

While counseling, the pharmacists used ‘compliance aids’ in order to improve the compliance following the counseling. The most commonly provided compliance aids were ‘medication envelops’ (52%), followed by ‘medication calendar’ (0.63%) and Leaflets
However, in 44.71% of the cases, compliance aids were not used. The amount of time spent by the pharmacists to counsel the patients is given in [Table/Fig 9].

The majority of times counseling was given by the ‘pharmacy assistant’ and then by the ‘pharmacist’. The details are given in [Table/Fig 10].

For better counseling, the pharmacists used ‘counseling aids’. Counseling aids are one of the better means to improve counseling (Appendix 2) Refer: [Table/Fig 1]. The most commonly used counseling aids were nasal sprays, metered dose inhalers (MDI) and rotahalers (a form of dry powder inhaler). Counseling patients with MDI is very essential. It has been shown that approximately 75% of the patients using MDIs do not take them properly[ 17].

In cases such as paediatric patients, elderly etc, the pharmacists counseled the patient party. It was understood that it was better to counsel the patient attendants of these patient population, so as to have a better compliance.

In MCC, counseling is provided as per the OBRA recommendations. As per the OBRA recommendations [12], the pharmacist must provide certain information to the patients while dispensing medication in the US. In Nepal, recently the good pharmacy practice (GPP) guidelines has been drafted, which also provides certain guidelines for the pharmacist to counsel the patients [18].

Dedicating adequate time is an important factor while counseling the patients. In our study, the pharmacists spent 6-10 minutes for more than one third of the patients, which is a welcoming effort. Dedicating more time will certainly have a positive impact on counseling.

In order to improve the outcome of the counseling, the pharmacists used ‘compliance aids’ that include medication envelops, medication calendar and leaflets. The use of leaflets and medication calendar were very poor, and needs to be improved. The use of medication envelops is one of the better means while counseling the illiterate patients.
Conclusion
The present study was successful in identifying the performance of the Medication counseling in MTH. Patients from the Otorhinolaryngology were the ones visiting the MCC more often. In general, the patients with modified drug delivery systems such as the MDIs and dry powder inhalers were counseled more frequently. The time spent by the pharmacists is adequate and in some cases, the patient parties were counseled for better outcomes. It can be concluded that, MCC at MTH plays an important role in educating patients towards safe and effective use of medicines.

Practice Implications In resource limited countries like Nepal, pharmacists can provide counseling to the patients through medication counseling centers. This may in turn improve patient adherence, which is one of the common causes for therapeutic failures in countries like Nepal.

References