

JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH

How to cite this article:

SAVAL KHANAL, SUBISH PALAIAN, P. RAVI SHANKAR, PRANAYA MISHRA, MOHAMED IZHAM MOHAMED IBRAHIM. ACADEMIC DETAILING AS A POSSIBLE SOURCE OF DRUG INFORMATION IN THE CONTEXT OF NEPAL: A SHORT REVIEW. Journal of Clinical and Diagnostic Research [serial online] 2009 August [cited: 2009 August 7]; 3:1697-1703. Available from http://www.jcdr.net/back_issues.asp?issn=0973-709x&year=2009&month=August &volume=3&issue=4&page=1697-1703 &id=467

REVIEWS

Academic Detailing as a Possible Source of Drug Information in the Context of Nepal: A short review

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ABSTRACT

The source of unbiased drug information is an integral part of evidence based practice. The status of evidence based practice in Nepal is very poor. One of the major factors associated with it, is the limited availability of new literature, and poor documentation and dissemination of the little available information. Academic detailing is an educational outreach program in which a trained health professional visits clinicians in their offices to provide evidence based information. So, there is a huge scope for academic detailing as a means to disseminate the available information in the context of Nepal. Research done worldwide has already shown improvement in the clinicians' knowledge, their attitude and practice, improvement in their prescribing patterns and an increase in their adherence to clinical guidelines, following academic detailing. In Nepal, there are many topics which can be selected for academic detailing. Topics covering the information regarding newer drugs, diarrhoea treatment guidelines, the rational use of antimicrobials, the rationality of fixed dose combinations, nonsteroidal antiinflammatory drugs (NSAIDs) and specialized devices for the administration of drugs, will be more relevant. Lack of local health statistics, lack of awareness about evidence based practice, challenges from pharmaceutical representatives and a lack of financing capability may be the major limitations for academic detailing in Nepal.

Keywords: academic detailing, drug information, evidence based practice

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Introduction

Availability of a wide range of treatment options for the same condition may cause difficulty in clinical decision making. In such circumstances, sometimes clinicians may select the treatment option based on their opinion and experience without adequate information about the advantages and disadvantages of different options. However, the modern world cannot rely on the treatment based on the clinicians' individual opinions and experience alone; instead, there is demand for scientific evidence and this has given rise to the concept of evidence based practice. Evidence based practice means the practice of using the most current research information to guide clinical decisions, while also fully taking into consideration the patient's values and circumstances [1]. Evidence based practice promotes the rational use of medicines. One of the major problems associated with practicing rational use of medicines is the lack of reliable and unbiased scientific information available for patient care in the context of Nepal [2]. Sources of reliable and unbiased drug information thus, become an important element of evidence based practice. In circumstances where clinicians do not have reliable and unbiased sources of drug information, academic detailing may play a vital role to update clinicians with evidence based information.

Academic detailing is an educational outreach program in which a trained health professional visits clinicians in their offices to provide evidence based information [3]. It is like a pharmaceutical representative visiting a physician, except that the information provided is evidence-based. Usually, it is given on a one-to-one basis; however, in some cases, it can be given to a small group of clinicians [4]. It is also known as an educational outreach or an outreach visit.

Nepal is a developing country with inadequately developed drug information

services. In this article, the authors provide an overview of academic detailing as a source of drug information and its scope in Nepal. The authors have also tried to discuss here, possible strategies to run an academic detailing program in Nepal, and its limitations.

Status of drug Information in Nepal

Historically, in the year 1995, the National Drug Policy of Nepal for the first time, emphasized the dissemination of accurate and unbiased drug information within the country. To fulfill this objective, the Drug Information Network of Nepal (DINoN) was established on November 23, 1996. The mission of DINoN was to develop and disseminate drug information among the members. At present, there are nine members of DINoN. Though more than one and a half decade has been already been spent, there has been no increase in the number of members of DINoN [5].

The activity of a drug information center in one of the teaching hospitals in Nepal is commendable. It has gone just beyond providing drug information. It provides drug information services to clinicians and other healthcare professionals, provides medication counseling to patients and their parties, runs a pharmacovigilance center, running continuing education programs and promoting the rational use of medicines inside the hospital [6]. Similarly, an article from Nepal has suggested that one of the teaching hospitals in Nepal is running DIC as a pilot project [7].

Though the scenario of drug information services is improving, it is doing so in a very slow manner. Within the last five years, there has not been an appreciable increase in the number of drug information centers associated with DINoN. Limited availability of new literature and poor documentation and dissemination of the little available information, are the main limitations for drug information services in Nepal [8].

Justification for academic detailing

The advantages of the academic detailing and the associated advantages are discussed below under different subheadings.

1. Academic detailing improves the knowledge, attitude and practice of healthcare professionals

The thorough discussion of a topic during academic detailing can improve the knowledge, attitude and practice of the healthcare professionals on that topic. Studies conducted in Kenya and Indonesia had found a significant improvement in the knowledge and performance of pharmacists with respect to the treatment of diarrhoea [9]. Similarly, other studies from Australia have suggested that academic detailing may have an impact on the physicians' knowledge and self-perceived understanding of evidence based medicine [10].

2. Academic detailing improves the prescribing pattern of clinicians

Certain studies done worldwide, have demonstrated improvement in the prescribing pattern of clinicians following academic detailing. Meperidine, an opioid analgesic, is not recommended as the first line drug for pain management because of safety and efficacy concerns. In a hospital in the United States, it was found that there was an increased use of Meperidine. However, academic detailing reduced the use of Meperidine in the hospital [11]. A study conducted in Sweden has concluded that there was a marked improvement in the prescription pattern of antipsychotics and benzodiazepines after academic detailing [12]. Another study from Spain has demonstrated the positive impact of academic detailing on the prescribing pattern of Nonsteroidal Anti-inflammatory Drugs (NSAIDs) [13]. All the studies suggest that academic detailing can improve the prescribing pattern of clinicians.

3. Academic detailing increases adherence to the clinical guidelines

Translating guidelines into practice has been the main problem in health sciences. Academic detailing can be used as one of the interventional programs to increase the clinicians' adherence to the guidelines [14]. Academic detailing has been successful in increasing the clinicians' adherence to the guidelines. A study conducted in Australia states that the clinician's adherence to the antibiotic guidelines was increased after academic detailing. They found that academic detailing remarkably decreased the number of antibiotic prescriptions and the total treatment costs [15]. Similarly, in another study conducted in a hospital in the United States, academic detailing was useful in implementing new guidelines for treating hypertension [16]. Therefore, academic detailing can be used as an informational or educational intervention to facilitate the implementation of clinical guidelines.

4 The perception of clinicians about academic detailing

Evidence based educational outreach visits are incrementally more effective than conventional educational sessions [14]. The clinicians' perception about academic detailing can be vital to bring behavioural changes in them. Some of the studies carried out on the perception of the clinicians towards academic detailing suggest that the clinicians appreciated academic detailing as a good means to update their knowledge. In a research conducted in Belgium, physicians rated academic detailing visits highly and approximately 90% of those who used academic detailing wished to use it again [17]. Similarly, clinicians valued academic detailing as an important source to get evidence based information and a study from Canada reported that despite being a source of valuable information, it is time-consuming [18].

5. The sustainability of academic detailing

To start a program is somehow easier than to sustain it. One article has reported that after a 10 year practice, academic detailing has become a sustainable source of drug information in Sweden. It has been

transformed from project to practice [19]. However, another article from Canada suggested that one academic detailing center was closed and some are in the way of closure because expected outcomes were not comparable to the investment in those academic detailing centers [20], suggesting that lack of economic strength can be one of the major limitations for academic detailing centers.

Need of academic detailing in Nepal

Academic detailing is known to improve the understanding of evidence based medicine [10]. There is very limited data on evidence based practice in Nepal. On observation, one can find that the practice of managing a particular condition in almost the same type of individuals greatly varies between clinicians, suggesting that the status of evidence based practice is very poor in Nepal. An unbiased source of drug information is the heart of evidence based practice. But contrary to this, upon observation, one can hardly find good reference books and other unbiased sources of drug information for the clinicians and healthcare professionals in Nepal [21], [22]. In such a scenario, the information which the clinicians or other healthcare professionals had obtained from their academic studies becomes the means of drug information for them. On other hand, due to the emergence of many pharmaceutical companies, clinicians are at a high risk of receiving biased information from their pharmaceutical representatives in Nepal [23]. Therefore, in the case where there is a lack of unbiased sources of drug information, academic detailing can serve as a means of unbiased scientifically proven drug information. For such healthcare professionals, the academic detailing program becomes more suitable. By this way, the educational intervention in the form of academic detailing may promote the concept of evidence based practice in Nepal.

There are so many areas where academic detailing can contribute in Nepal. With the

help of some health statistics, drug utilization studies and some pharmacoepidemiological studies, the authors try to postulate some of the important topics which can be focused during academic detailing. Those topics are mentioned in [Table/Fig 1].

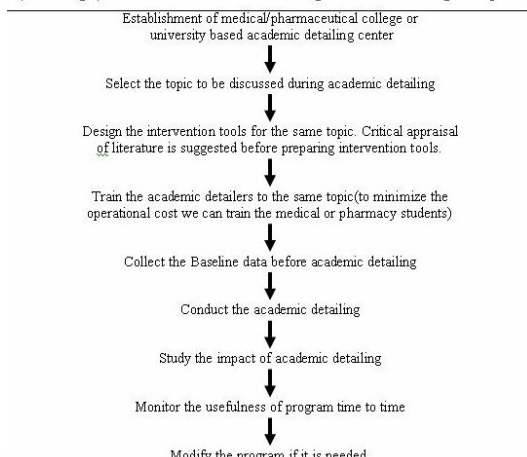
Table 1 Some topics which can be focused for academic detailing in Nepal

S.N.	Topics	Relevance of topics in context of Nepal
1	Information regarding newer drugs	In Nepal clinicians have very few alternatives to get information regarding newer drug. Drug information provided by pharmaceutical representative may be one of the major sources of information to them. The information received from such representative may be biased. ²³
2	Diarrhoea treatment guideline	Acute diarrhoea is the major cause of child mortality and morbidity in Nepal. ²⁴ Use of oral rehydration salts (ORS) and zinc is the first choice of treatment for acute diarrhoea in children. ²⁵ Though there is limited data from Nepal but the studies from other countries suggest many cases related to underuse of ORS and zinc. Instead of them agents like intravenous fluids, antimicrobials, antimotility agents, enzymes, etc have been the choice of treatment. ^{26,27} So the pilot study on academic detailing regarding WHO/UNICEF endorsed diarrhoea treatment guidelines with the importance of ORS and zinc in diarrhoea has been already started in a district of Nepal. ²⁸
3	Rational Use of Antimicrobials	Inappropriate use of antimicrobials may lead to its resistance against previously susceptible microorganism. Some of the drug utilization studies from Nepal indicate the higher incidence of antimicrobial usage. ^{29,30,31} Even we can find the cases of usage of antimicrobials as self medication. ³² So to create awareness and improve antimicrobials usage pattern academic detailing can be conducted to clinicians, pharmacists, nurses and other healthcare professionals. Academic detailing can also be used to community stakeholders to create awareness of antimicrobial resistance.
4	Rationality of fixed dose combinations	Irrational fixed dose combination drugs like Ampicillin + Cloxacillin, Ciprofloxacin + Metronidazole, Furazolidone + Metronidazole, Diphenoxylate+ Atropine + Furazolidone, and many others are still available in the market of Nepal. ^{33,34} Academic detailing on justification regarding irrationality of such products may reduce the use of such type of fixed dose combination drugs.
5	Nonsteroidal antiinflammatory drugs (NSAIDs)	Studies from Nepal reports the maximum usage of NSAIDs including paracetamol. ^{35,36} Frequent and long term uses of NSAIDs are known to cause gastroenteritis, hepatotoxicity, renal toxicity and several other adverse reactions. ³⁷ It also increases financial burden to the patients and their party. So academic detailing can be used to minimize the use of NSAIDs.
6	Specialized devices for administration of drugs	Specialized devices like inhaler, baby mask, nasal spray, insulin pen, insulin jet, etc needs special steps for the correct administration of administration. Healthcare professionals like doctors, nurses, pharmacist, etc must know how to use them so that they can counsel the patient about proper administration method. However an interventional study conducted in a tertiary care teaching hospital in Nepal suggested that majority of the healthcare professional including the pharmacists working on medication counseling center did not have adequate knowledge of using metered dose inhaler prior to intervention. ³⁸ This suggests some interventions are required to improve their knowledge to use some special devices for the administration of drug. Researches regarding the impact of academic detailing on such area may also be of high importance.

How academic detailing can be conducted in Nepal?

Ros- Degnan et al has suggested four steps to the healthcare professional to carry out an educational intervention. These four steps are (1) Assess knowledge and actual treatment practices (2) Identify underlying motivations and constraints to changing practices (3) Design a persuasive educational intervention and (4) Carry out and evaluate the intervention [39]. The authors of this article have proposed a model method for conducting academic detailing in Nepal, based on the method of Ros-Degnan et al as discussed above. The proposed method is diagrammatically illustrated in [Table/Fig 2].

(Table/Fig 2). A model method for conducting academic detailing in Nepal



Expected limitations in conducting academic detailing in Nepal

In a study conducted in the Netherlands, clinicians identified some barriers in the way of the participation in academic detailing. The barriers identified by them were –the information in academic detailing was not new and could be obtained in other ways, the information was politically coloured and was designed to cut expenses and the educational visits were time-consuming [40]. These types of limitations can also be expected in Nepal: however, the barrier of academic detailing to cut expenses may not be relevant to Nepal as there is no third party payment system in Nepal. In addition to the above limitations, some other expected limitations in Nepal are as follows:

1. Lack of local health statistics

This may cause a difficulty in selecting the medicines for which academic detailing should be prioritized. This may also cause problems in getting the information regarding the therapeutic efficacy and safety profile of the medicines in the local population.

2. Lack of awareness about evidence based practice

Since clinicians in Nepal are less aware about evidence based practice and rely mostly on their personal judgment and experience for clinical decision-making,

they may not take academic detailing to be an important means of drug information.

3. Challenge from pharmaceutical representatives

Since the aim of both pharmaceutical representatives and academic detailers are to bring changes in the prescribing pattern of clinicians, it may be difficult for academic detailers to compete with the financial strength of pharmaceutical companies.

4. Lack of financing capability

More resource persons need to be appointed and bulletins and information leaflets may be needed. In such cases, economic problems may limit academic detailing. Sometimes, clinicians may also demand some bursaries to spend time on academic detailing. Apart from this, travel and other allowances are also required for academic detailers. So, there will be a demand for a budget to conduct academic detailing.

Conclusion

Though the scenario of the drug information services in Nepal is changing, it is not progressing in an expected manner. The status of evidence based practice is poor in this country. In this article, we have discussed the scope of academic detailing as the source of drug information in the Nepalese perspective. Academic detailing has already been practiced in other countries and has been shown to have a positive impact on promoting evidence based practice. The authors of this article have proposed a model to conduct academic detailing programs in Nepal. More research on the impact of academic detailing in the context of Nepal is required.

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