



Medical Representatives in Rural Bangladesh: Who are They and What is Their Role in Drug Market

M. Hafizur Rahman

Smisha Agarwal

Susan Tuddenham

Heather Peto

Mohammad Iqbal (ICDDR,B)

Abbas Bhuiya (ICDDR,B)

David Peters

Johns Hopkins University

Bloomberg School of Public Health, USA

Contents

- Background
- Objectives
- Material and Methods
- Findings
- Discussion

Background

- Informal health care providers deliver a significant proportion of health care services (40-60%) for the poor [Ahmed et al, 2007; Cockcroft et al, 2007] despite irrational use and over prescribing of drugs [Ahmed et al, 2007, Guyon et al, 1994, Chowdhury et al, 1982]
- Promotion of drugs by medical representatives (MR) is known to influence provider practices [Lee et al, 1991, Barros 2000]

Objectives

- To describe the **job characteristics of medical representatives**, and **differences in promotional practices** they apply to informal and formal health care providers
- To identify the **incentives** offered to informal health care providers (village doctors) by the medical representatives
- To **characterize and compare** the training, knowledge and practices of medical representatives and village doctors

Study Sites



- Study was conducted in 9 unions and one township [(Shaharbil, Baraitali, Bheola Manik Char, Kaiyerbil, Kakara, Konakhali, Demushia, Paschim Barabheola, Manikpur Surajpur and Chiringa (Chakaria town)] in Chakaria sub-district of Chittagong district of Bangladesh between 28th December, 2008 through 20th January, 2009.

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- The study was conducted in ICDDR,B study areas and data were collected from 84 village doctors and 43 medical representatives covering about 44% (range 35-60%) of the village doctors and 17% of the medical representatives of the study areas

Material and Methods

- A snowball sampling technique was used in enrolling constantly moving medical representatives using referrals from village doctors and medical representatives themselves
- MRs from both the large and small pharmaceutical companies were enrolled in this study

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- Both **qualitative** (FGDs and IDIs) & **quantitative** survey methods
 - **14 FGDs and 28 IDIs** with the *village doctors*, and **8 FGDs and 5 IDIs** with the *medical representatives* (info on practices, incentives and interactions between village doctors and the medical representatives)
 - A **structured survey questionnaire** (info on demographic profile, training, perception and practices of the respondents selected for the qualitative interviews)

Study Analysis

○ Qualitative data

- Grounded Theory (The transcripts were first coded and the codes were then collapsed into core concepts, and reviewed and discussed by the researchers. Any disagreements were resolved by reviewing the data transcripts.)

○ Quantitative survey data

- Descriptive statistics (characterize and compare the demographic profile, level of education, monthly expenditure and sources of income between the village doctors and medical representatives.)
- Two-sample Wilcoxon rank-sum (Mann-Whitney) test
- Chi-square test

Study Findings

Education/Training of MR

- All MRs had at least **some college level education**
- Process of recruitment varies from large to small pharmaceutical companies
- On average MRs had around **41.5 days of training**
- Refresher training and educational sessions on new drugs ranged from **none** at smaller companies to **1-2 trainings per year to several times per month** at some larger companies

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- To learn more about medications, MRs use company literature, pamphlets, internet, and phone calls to company's product management department
 - *"There are 90 MRs in [my pharmaceutical company] in the Chittagong region. For training, the company brings all of them to one place for a day. Because there are so many people, there isn't enough time to get detailed information about medicines."*

Job duties of MR

- To acquaint health care providers with company's medication
- For some it's merely naming the medicine and its use; for others, be strategic in marketing is required by company

"Telling is not selling. Selling is a knowledge game"

Information provided by MR

- For all village doctors – MRs as principal and often sole source of information about new medications
- Literature Vs package inserts
 - *“The literature is in English and contains complicated words which are difficult to understand. (The meanings of which) Even the MRs don’t understand”*
 - *“(The package inserts are) Very helpful, more helpful than the literature provided by the MR”*

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- Inaccurate information; village doctors depend on prior knowledge and experience
 - Describe the benefits but often miss out the harmful effects
 - *“Chloramphenicol is not good for children but MRs do not say this. They never talk about the bad effects. In this way MRs are silent killers, they kill by omission.”*

Incentives offered

- Grades the health care providers as A, B, C, D (A+, A++ if exceeds the expected number of prescriptions)
- Incentives
 - **Discounts/Samples** –usually 2-3%. Sales target → 25% discount on a sale of TK 5000, and 30% discount for sale of TK 10,000.
 - **Gifts** (bigger gifts (foreign trips) to graduate doctors and popular village doctors
Gifts include chair, stethoscope, mobile phone, watch, fridge, and financial incentives
“3 boxes sale (of medicine) equals one umbrella!”
“One packet of cement for good sales (for my construction business) and a chair...but only from a reputed company.”
 - **Credits** – pay back time varies from 5 days to 1-3 months.
Small companies - flexible credit limits

Marketing Strategies

- Two pronged 1) persuade doctors to prescribe their medication 2) persuade informal providers cum chemists and wholesalers to sell their medicines
- Same literature (in English) used for formal and informal providers
- More in-depth scientific info to formal providers (esp about new medications)
- Under pressure (company supervisors) to perform better, MRs exaggerate the benefits and reduce adverse effects (more with informal providers)
- Market simpler products (paracetamol, vitamins) to informal providers, and advanced medicines (cardiac medicines, antibiotics) to formal providers

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- More professional relationship with graduate doctors – more friendly with the village doctors
 - Village doctors had interests in friendly relationships
 - *“If I cannot pay credit then I buy them (MRs) tea, but if they want me to give new order (for medicines) then they will buy me tea.”*

Differential Marketing Strategies

- VDs are more frequently visited by MRs from smaller companies – in the remote areas , difficult to access by road
- More incentives from smaller companies (flexible transaction credits, bigger gifts and discounts)
- *“Big company MRs give better information and offer better guidelines for drug usages. The small companies MRs are only interested in selling the drugs and cannot even explain their own product”*

Who are the Village Doctors?



Characteristics of Medical Representatives and Village Doctors

Characteristics	Medical Rep <i>N</i> =43	Village Doctors <i>N</i> =83	P-value
Age (in years) Mean (+SD)	31.1(+4.8)	38.5(+12.4)	<0.01
Family size Mean (+SD)	4.7(+2.4)	5.8(+3.2)	<0.05
Monthly household expenditure	<i>n</i> (%)	<i>n</i> (%)	
<=2500	0	1.8	
2501-5000	1(2.9)	17(25)	
5001-10000	13(37.1)	38(55.9)	
10001-15000	11(31.4)	5(7.4)	
15001-20000	7(20)	6(8.8)	
>20000	3(8.6)	1(1.5)	
Median (in Taka)	13,000	8,000	<0.001
Education	<i>n</i> (%)	<i>n</i> (%)	
Secondary (10th grade)	0(0)	19(23.2)	<0.001
College (12th grade)	1(2.3)	50(61)	
Gradute	24(55.8)	13(15.9)	
Post-graduate	18(41.9)	0(0)	
Alternative source of income		<i>n</i> (%)	
Agriculture	-	26(56.5)	
Shrimp/Fish culture	-	6(13)	
Other	-	14(30.4)	

Discussion

- The MRs are an important source of pharmaceutical information for village doctors. The fact that MRs are more educated and financially better off than village doctors might strengthen their position to affect prescribing practices of village doctors.
- Regulating and promoting ethical promotional practices by pharmaceutical companies might aid in improving prescribing habits of village doctors.

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- The incentives offered by pharmaceutical companies to medical representatives encourage aggressive promotional practices that differ for informal versus formal providers.
 - Medical representatives may be an untapped ally in efforts to address undesirable prescribing practices in the informal sector of developing countries.
 - Regulating incentives offered by pharmaceutical companies to medical representatives may encourage more ethical drug promotional practices in the informal sector.

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