A Study on Perception and Belief of Medical Sales Representatives towards Physician's Prescription behaviour in Punjab

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ABSTRACT:

Background and objective: The prescribing behaviour of doctors is largely influenced by the various stimuli used by pharmaceutical industry. Medical representatives have an essential role in promotion of any medicines into the medical industry. However, misconceptions and negative perceptions about doctor's drug prescription among them could be a barrier in getting the cheap and effective medicines to public. This study has been done to investigate interaction of medical representatives (MR) and its influence on the prescribing habits of physician's. Therefore, the aim of this study was to look at their knowledge, perceptions and views about doctor's drug prescription.

Keywords: Prescription behaviour, perception, medical representatives, Punjab, pharmaceutical industry.

INTRODUCTION

The pharmaceutical industry plays a crucial role for the evolution, advertising and promotion of drugs. Thus, its significance as an inclusive sector is inevitable. In 2014, the combined revenues globally for this industry had exceeded $ one trillion for the very first time. However, as in other industries, the Chinese pharmaceutical sector has significantly grown in last few years. Indian pharmaceutical industry holds roughly 2.4 per cent and 10 percent of the worldwide pharmaceutical industry in value and in volume terms and is expected to expand from a present base of US$ 20 billion to US$ 55 billion showing a compound annual growth rate (CAGR) of 15.92 per cent. The future growth of Indian pharmacy industry is likely to remain sluggish on account of stagnated growth from the US, increased rivalry leading to price erosion, adoption of generics by countries and regulatory hurdles. Activities done by pharmaceutical companies are an important component of educating and informing patients and all health care providers about various treatment options. Companies use publicity tools to updated and inform patients about various treatment options, while pharmaceutical medical sales representatives work to get and disseminate accurate, up-to- date information on drugs to health care provider. These efforts have triggered the controversy about their value among physicians. People often go to hospital frightened by seeing the medicines written by doctor but surprised on figuring out the prices of drugs prescribed. This is the influence of a medical representative on a doctor.

The prescribing behaviour of doctors is largely influenced by a number of factors of which the visit by medical representatives (MR) is the key one. It is approximate that around 15,000 MR's carry out some 20 million visits to health providers in foreign countries each year. During their visits, the MRs inform and update the health providers about their company's new products and publications and in the course of their discussion they tend to use variety of communication tools to stimulate the doctors to prescribe their drugs.

LITERATURE REVIEW

(Ahmed et al 2017) examined the attitude of the physicians towards various direct to consumer advertising (DTCA) and to examine the extent of patients' request for a specific brand which lead to actual prescription generation through a quantitative study which showed it contributes towards knowledge and second, it shows the importance of DTCA and its impact on prescription generation and, lastly, it will help in devising advertising policy for the drug.**(Ahmed, et al 2016),** investigated using a structural equation modelling (SEM), and established strong association between tools of communication like scientific leaflets of drug, promotional material, regular follow up, conferences and other personalized activities and prescription behaviour of doctors mediated by strong experience of MR, PR and brand image of a company in shifting the drug prescription behaviour of doctors. **(Suri et al 2016)** founded that although Indian pharmaceutical industry has leveraged the benefits of being a globalized economy but, it still lags much behind the MNCs in terms of investment in R&D (Research and Development) which is the main deterrent to the industry to reach the next level of internationalization The authors reported of a causal relationships amongst the variables which reveals unique characteristic of Indian pharmaceutical industry in terms of a significant but short-lived impact of R&D investment on exports. **(Chressanthis et al 2015),** investigated the elements like medicine volume of medications, practice measure, urban site, and doctor level characteristic utilizing a multinomial strategic relapse demonstrate in which the outcomes uncovered that doctors with moderate oversaw care control had more noteworthy appropriate as far as possible than doctors with high or low overseen care control, doctors with higher remedy volume, in littler practices, and in less years since graduation. Access confines additionally extensively differed by explicit urban area. **(Ankush k et al. 2015)** reported that pharmaceutical sales representative being the source of communication in so far as doctors are concerned, important source of feedback from the company's products in the market place, how they are being perceived, what- competitors are doing and what are the customer demands/suggestions/complaints etc. As sales being one of the challenging tasks, medical representatives of various companies come through various challenges in their routine job. **(Boccuzi, 2014)**, revealed considerable difference between physicians' and pharmaceutical representatives' perception about push and pull strategies (six of seven correlations), pull marketing strategies (four of six correlations), and ethical consideration among three of the ten elements of marketing.

(Klaus Lieb, 2014), founded in the study various variables like number of medicines, consumption, and day by day portions for all on-patent marked, off-patent marked, and conventional medications, which revealed that more than two third of doctors saw medical sales representatives at least once a week and of which around 69% accepted physician drug samples, 39% accepted office stationery products and 37% took part in company sponsored CME programs. Only 3% physicians accepted no benefits at all from companies. However, around 43% of doctors believed that they normally received accurate drug information from Medical sales representatives but 42% of physicians believed that their prescribing habits were largely influenced by the visits of company sales personnel. Specialists who trusted that they got precise data indicated higher uses on conventional medications, regardless of whether different factors like supported CME, acknowledgment of office stationery things was likewise related in affecting their solution conduct. **(Blandina Šramová, 2013)**, revealed through an examination directed to decide the impression of moral conduct of the pharmaceutical business in Slovakia by the prescription agents in correlation with the appraisal of specialists and patients in which members were partitioned into three gatherings in which results indicated impact of expert status on moral conduct discernment. Raised discernment was demonstrated in patients as opposed to specialists and drug deals agents towards different exercises. (**Narendran & Narendranathan, 2013**), revealed that excellent rapport with the health care professionals, drug launch meetings, repute of the company, superiority of the drug and drug brand names considerably influenced prescription behaviour of doctors, while direct mailers, advertisements in medicine journals and giving stationary items and other brand reminders were less effective.**(Handa, et al 2013)**, talked about the significance connected to advancement apparatuses, as data sources and the degree to which these advancement instruments affected the medicine conduct as seen by doctors whereby doctors apparent gatherings/symposia to be the most tenable data source about the medications. In addition, an examination of the connection between recognitions with respect to different advancement instruments and statistic factors demonstrates an extensive relationship among sexual orientation and sort of medical clinic and unwavering quality appended to the different deals limited time apparatuses utilized by the organizations. **(Kasliwal, 2013),** talked about that the kid authorities appraised psycho-social factors as least imperative components impacting endorsing conduct when contrasted with different claims to fame. In addition, senior specialists who were viewed as key feeling pioneers among friends to settle on judicious recommending choices dependent on clinical realities likewise appraised these psychosocial factors as less impacting when contrasted with more youthful specialists. **(Bakker et al. 2013)** analyzed the different factors in the scope of the medications endorsed by general experts, recognizing the general specialist's attributes, qualities of the training settings, portrayal of patient populace and data sources utilized by general professionals. The investigation established that there was significant dissimilarity between ATC primary gatherings and subgroups and between GPs. General doctors having bigger patient base regularly will in general be more connected with higher endorsing drug volumes and the individuals who every now and again get delegates from the pharmaceutical business have a more extensive scope of medicine when controlled for different factors. **(Nagashekhara, et al 2012),** discussed the existence of ethic codes and its influence on

ethical behaviour of medical representatives in the promotion of pharmaceutical products. The outcome concluded that multinational companies have code of ethics. Moreover, ethical behaviour of medical representatives from multinational pharmaceutical companies has significant difference as compared to those from domestic companies. **(Idris, et al 2012)**, studied that of the sample surveyed more than two third were male and had also received training in professional sales skills and had the information about the drugs being promoted. But around two third of them agreed to had been provided full and balanced information about prescription drugs. Doctors also conveyed that medical sales representatives were not giving them appropriate or were hiding the true drug information but 66.9% of them considered receiving free gifts as ethically correct. **(Theodorou, 2009)**, uncovered that clinical adequacy of the medication being recommended is the most essential figure considered medication solution decision, in which wellspring of medication data for doctors incorporates: peer-assessed medicinal diaries, therapeutic reading material, gatherings and restorative deals agents. Most of specialists in the two nations concurred that the viability, security and proficiency of conventional medications may not be great but rather it is adequate. Doctors trust that new medications propelled may not be in every case better but rather are not supported with regards to their more expensive rates. **(Taneja, et al 2007)**, conveyed that the various promotional tools used by pharmaceutical companies largely influenced the drug prescription behaviour of physicians of which sponsorships, whether being personal or professional, are the most influencing whereas scientific promotional tools which help in growing awareness has been supposed to be the second most important one. Promotional tools having attributes like personal touch are supposed to be better as compared to general promotional tools.

Research Methodology:

Research objective is one of the central elements for conducting any research as it helps in determining the feasibility of conducting the study. Basically, the broad aim of all researchers is to confirm the reliability of present knowledge and to find the deviation of existing knowledge i.e. to contribute new knowledge to the existing knowledge. Thus, before a research is conducted, it is noteworthy to identify objectives as it evades precious wastage of time and efforts.

Objectives for conducting this research are as follows:

1. To analyse the perception of medical representatives towards doctors on prescribing medicines to patients.
2. To find that which variable affects the most in the prescribing habits of doctors.
3. To determine the correlation among the variables

Target population is defining on the basis of gender, on the basis of age, on the basis of geographical, on the basis of income and on basis of religion. We decided to keep our research target population as Medical

Representatives of Punjab region with a sample size of 100 divided across various cities whereby a structured questionnaire was used and data was collected through survey method

Analysis:-

Correlations

		Personal etiquettes (behavior) of the MR effects the prescribing behavior.	Age
Pearson Correlation	Personal etiquettes (behaviour) of the MR effects the prescribing behaviour.	1.000	*.263*
	Age	*.263*	1.000
Sig. (1-tailed)	Personal etiquettes (behaviour) of the MR effects the prescribing behaviour.	.	*.009*
	Age	.009	.
N	Personal etiquettes (behaviour) of the MR effects the prescribing behaviour.	80	80
	Age	80	80

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The bolded areas of the table .263 are the highest recorded value in correlation table of the available statistics. Since the Personal etiquettes of MR will influence more on the prescription behaviour. It is a clear proof of estimated variable effacing the perception drawn by significance level of .009 and also the R^2 value come out to be 0.69 which is above the moderate R^2 values, giving us a model which is more relevant.

In this test we will be finding the perception with respect to the age of Medical representatives. It is found that most possible variable that is affecting the perception behaviour is Personal etiquettes (behaviour) of the MR affect the prescribing behaviour.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Age	80	39.0750	10.96574	1.22601
Personal etiquettes (behaviour) of the MR effect the prescribing behaviour.	80	3.9875	.99992	.11179

Then performing regression on the particular variable we've drawn to the following conclusion:

Personal etiquettes (behaviour) of the MR effects the prescribing behaviour will be depended upon the Age of the MR which is about to show the following equation:

Personal etiquettes (behaviour) of the MR effects the prescribing behaviour = 0.02401 Age + 3.04.

The above equation is based on the consideration that the all other hypothesis stand accepted but rejected on the context of age as demographic variable.

OUTCOMES

Regression model will be the best way to find the dependency of variables on any independent variable. This linear regression model suggesting that the following variables show positive impact on the prescription behaviour of a doctor:

- Free samples affect the prescription behavior.
- Cost/ Price of the drug impact the doctor's prescription behavior.
- Age of MR is a major factor.
- Good knowledge regarding the drugs to the MR affects the prescribing behavior of doctor.
- Personal etiquettes (behavior) of the MR affect the prescribing behavior.
- Good communication of medical representative influences the doctor.

At last we conclude that all the 25 variables are effective in measuring the perception of the medical represents towards the doctors. Only 4 variables show the slightly negative impact rest 21 variables have positive impact in measuring the perception. The overall mean turned out to be 3.736 which are also inclined towards the positive edge.

LIMITATIONS

We tried to cover each and every possible variable that we found in our study which affects the perception of medical representative towards the doctors in the prescription behaviour but there were some limitations in our study which are listed below.

1. Time constraint: In the time constraint of 3 months, we were able to cover few aspects of this research. Due to this limitation, we were not able to cover all the variables.

2. Demographic factor: Our research was limited to Punjab region only.

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