FACTORS INFLUENCING THE PRESCRIBING BEHAVIOR OF MEDICINES BY PHYSICIAN’S: A STUDY ON ANTI-ALLERGIC DRUGS IN AND AROUND HYDERABAD, INDIA.

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ABSTRACT

The Physician’s prescription decision is a complex process that involves a variety of effects. In numerous cases, the choices of physician’s are multifactorial and may take up several strategies when making their prescribing decision, and several kinds of critical heuristics in conducting their duties of patient treatment. Previous studies conducted in different countries deployed various complex propositions to understand how several factors impact physician’s decision-making in their general practice. However, to the best of our knowledge, most of the propositions can’t solely explain the medical rule decision of physicians and affiliated factors. This has redounded in demands for further theoretical exploration to develop better interventions demanded towards understanding the dynamics of physician’s prescribing decision process. The main objective of our research is to develop a framework and understand the factors affecting the physician’s prescribing behavior among respiratory physicians (ENT+Chest Physicians) in and around Hyderabad, India. The individual independent factors based on which framework has been constructed were derived from the literature review, including the questionnaire, and integrated the same with a personality assessment instrument for testing the model and hypothesis of each independent factor on the physician’s prescribing behavior. The determined sample size was 170 physicians with various practice set-ups. For Analyzing the data mixed approach has been adopted consisting of both descriptive and inferential statistical methods comprising of factor analysis, correlation analysis, and regression analysis using the SPSS 21 version. The results showed that a physician’s prescribing behavior is influenced by a set of factors namely, Product related factors, physician professional factors, and Physician’s personality factors. Product Promotional factors from various pharmaceutical organizations, could not influence physicians in their prescribing decision, as the items forming this factor could not reach statistically significant levels.

Keywords: Physician’s Prescribing Behavior; Personality; India

RESEARCH HIGHLIGHTS

• Our study showed that a Physician’s prescription behavior is influenced by product-related factors consisting of safety, superiority, and cost of the branded drug and patient expectations towards better adherence for early recovery. Physician’s professional factors are led by the level of education, clinical experience, and interaction with colleagues. Physician’s personality factors constitute altruistic trait, security trait, and commerce trait. However, the product promotional factor was found to be insignificant to influence the physician’s prescribing decision.

• Study findings are comparable and in line with the previous studies with a positive influence of physician’s professional and product-related factors (Theodorou M et al, 2009), physician’s personality factors and non-influence of product promotional factors (Fickweiler et al., 2017) on the prescribing decision.

• However, our research study, the first of its kind has contributed newer insights into the impact and interplay of personality traits on physician’s prescribing decisions.
Research Objectives

Despite the several studies in the past using various conceptual models investigating the factors influencing the physician’s prescribing behavior, none of the propositions can solely explain the medical rule decision of clinicians and its affiliated factors with the TPB model successfully explained a wide range of health professional gestures ranging from attitude to behavioral control (Lemaire & Wallace, 2014) and intentions in the operating environment (Zhou et al., 2022).

A vital proposition of these theories is that individualities are rational in decision-making without the role and influence of unconsciousness, and emotions beyond anticipated effective outcomes are static in nature which fail to explain the evidenced effects of behavior on cognitions and future behavior. This suggests the incorporation of emotional variables as a valuable approach to modifying the behavioral propositions of physicians prescribing (Sniehotta, 2014).

Further research confirmed that correlation analyses found the link between primary and better emotions as their reference to personality (Hiebler-Ragger et al., 2018). Our research study objective is to analyze and identify the most influencing physician’s professional factors, product-related factors, product promotional factors, and physician’s personality factors on their prescribing behavior.

Methodology

The research is based on “Mixed Research” methods as they will help investigate the core objectives of the proposed research and is not based on the time, location, and context aspects, including,

- Quantitative Research: primary data has been collected from the survey questionnaire developed based on the literature survey representing all the
identified factors has been administered by the researcher to the target audience for their response based on the Likert scale. Descriptive statistics involving measuring mean and standard deviation followed by inferential statistics comprising factor analysis, testing the correlation, Regression analysis for model fit (ANOVA), and hypothesis testing were undertaken using SPSS 21 version software.

- **Focus Group Discussion**: Focus Group Discussion will help us in answering the “WHY” for the observations, and gaps that are being brought out by data with the help of statistical tools.

**Results**

Our research from the branded generic market like India among specialist respiratory physicians showed that the most important factors affecting the physician’s prescribing behavior are Product related factors, Physician professional factors, and physician’s personality, precisely three traits namely altruistic trait, security trait, and commerce trait. However, product promotional factors though showed a trend toward influencing but could not reach-up up to a statistically significant level. This is very important and reinforces the need for developing policies, guidelines, and frameworks, by the authorities and agencies governing the healthcare system towards enhancing the standards of,

- Physician’s clinical practice for managing diseases better right from early detection to management, for improving trust, and quality of care for good health, which lays a strong foundation for physician-patient centric management.
- Pharmaceutical promotion standards with better access to affordable care and encouraging propagation of medico-marketing initiatives based on evidence-based medicine, which are implementable for real-time clinical practice, thereby rationalizing optimal resource utilization for patient’s benefit.

**Findings**

Our research model indicated and explained 49.5% of the variability of physicians prescribing behavior reinforcing the robustness of the model to be substantial level (Cohen, 1992). With respect to factors, Product related factors, Physician’s professional factors, and 3 personality traits of physician’s Personality were found to have an influence on their prescribing decision. Product promotional factors though showed a trend toward influencing but could not reach-up up to a statistically significant level. This calls for excluding all the expenditure which is not improving the standards of the healthcare ecosystem and efforts should be made to identify the avenues which are beyond the current conventional methods towards raising the bar towards improving the efficiency, and effectiveness of all stakeholders in the entire value chain by creating value and hope for the patients in conquering sufferings, thereby helping them to lead a better quality of life.

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My guide, Mentor, Teachers, parents, and family members.
References


Author’s Biography

Viswanath Bandi, is Research Scholar, Faculty of Management at ICFAI University, Jharkhand, Ranchi, India. He is Pharmaceutical Marketing Professional with 2 decades of experience in Sales and Marketing in the Indian Pharmaceutical Industry with expertise in New Brand Launches, Portfolio development in the segments of Pediatrics, Respiratory, Gastroenterology, Hepatology, Nutrition, Neurology and Vaccines with deep interest and passion for towards contribution to academics and to the healthcare eco-system.
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