

# Evaluation of Recent Trends of Prescribing Herbal Drugs among the Prescribers; a Pilot Study

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**Abstract** – The aim of the study was to evaluate the recently launched trends in the prescribers towards prescribing of herbal medicines to their patients. In this research activity a group of 50 such medical prescribers were randomly evaluated. Each member of the group used to prescribe an average of atleast ten patients on daily basis and belonged to the Bannu District of Khyber Pakhtunkhwa. 45 members showed their consent to participate in this study. Now the prescriptions of each of these members of selected group were monitored for thirty different days throughout a complete calendar year, starting from June 1, 2016 till May 31, 2017. All the medicines recorded in those prescriptions were recorded and were translated to their generic names in order to make their identity crystal clear. Among the prescribed medications, the percentage of herbal drug was recorded. Results were presented by applying statistical tool (SPSS). A clear picture of tendencies and trends of inclusion of herbal medicines in the prescriptions among the prescribers of District Bannu was produced. Results revealed that 14 (31%) members did not prescribe a single herbal drug in the entire session of survey. 31 members (69%) prescribed atleast one herbal drug among all the drugs prescribed by them which showed a huge extent of prescribers to be engaged in prescribing of herbal drugs. Among these 31 members, 23 members prescribed herbal drugs at an average rate of 1 herbal drug per every five prescriptions which is 74 % of all prescribers involved with herbal prescriptions and 51% of the total number of members engaged in that particular study. 5 members (11% of total members) prescribed one herbal drug per every 3 prescriptions. 2 members showed a huge tendencies towards prescribing of herbal drugs as atleast one herbal drug was observed in every second prescriptions suggested by them to their patients for different ailments. These recordings and results reveal that prescribers of the said area are going to be engaged heavily in prescribing of herbal drugs due to one or the other reason. Unfortunately, there is not much quality control checkup legalized for the production as well as the prescription of these drugs available up to the sufficient level. In other words a huge number of patients are going to use those chemical entities in the form of herbal medicines whose quality is questionable..

**Keywords** – Prescription, Patient, herbal, ailment

## 1. Introduction

Herbal agents have been considered as the oldest remedy among the healing agents [1]. Plant-based therapeutic agents were in fact the only available treatment chemicals in ancient times [2]. But due to certain unavoidable hurdles associated with discovery of medicinal agents from plants, the synthetic substances occupied the commercial market throughout the world [3]. It is a matter of fact that synthetic as well as semi synthetic molecules have not been able to fulfill all our goals [4]. But in the recent era the researchers has come to the conclusion that synthetic medicines are not going to fulfill the expected goals [4]. Moreover Modern world is facing issues of patient compliance [5]. Compliance issues may be at a higher level in herbal drugs as compared to the other forms of drugs. Such a scenario again attracted the attention of industrialists as well as the Pharmaceutical scientists in the herbal drugs. Certain major conditions like diabetes mellitus were likely to be treated with herbal medications [6].

From the very beginning man has been in a search of

agents and chemicals that may end their sufferings [7]. Evidences show that the use of herbal drugs was started about 6000 years ago [7]. Recently it has been calculated that a handsome portion of overall drug market has been occupied by herbal drugs [8].

Egyptian and Chinese traditional medicine system showed documented evidences over several thousands of years [8]. The famous Chinese emperor wrote a historic manuscript that contained a number of herbal drugs including Ginseng, Camphor etc [9]. The usage of the medicinal plants was done in the history without having a specific clue regarding the active therapeutic constituents and their allied pharmacological functions. Plant based rational discovery of drugs was initiated in the 19th century with the isolation of Morphine from opium plant by Arabian Researchers [7].

Generally the herbal drugs are assumed to be natural as well as harmless substances [10]. Due to this reason the utilization of herbal agents has immensely elevated in previous few years across the globe [11]. This trend is going to be elevated gradually with the passage of time

[11]. Such practice is observed in both the institutional as well as non-institutional setups. The institution based prescriptions are going to exhibit certain serious health issues in Pakistan especially with respect to antibiotics [12]. In spite of this fact the prescribers are going to include herbal drugs in their prescriptions in the United States of America [11]. Lack of proper rules about herbal agents encourages the health care professionals to be engaged with the herbal drugs in their daily practice. FDA has no strict regulations for herbal drugs just like it has for other forms of therapeutic agents [11]. Individual cases as well as the in-vitro demonstration never fully justify an event. There is no in-vivo verification available for the interactions as well as the adverse events associated with herbal drugs [11]. So the health care professionals must pay special attention while prescribing, dispensing or administering such agents to the patients [11].

The aim of this research activity study was to evaluate the recently launched trends in the prescribers of prescribing of herbal medicines to their patients

## 2. Materials and Methods

### 2.1. Selection of Test Group

The selection of members for the test group was made using an inclusion criteria which included;

- The member must be a Registered Medical Practitioner with Pakistan Medical and Dental Council and Ministry of Health, Pakistan.
- The member must be presently practicing medicine within the territory of Bannu District.
- Minimum of an average of ten patients must be recorded to see him or her for the treatments of their diseases on daily basis in last six months.

Following the L.R.Gay model for intermediate populations, 50 members with the assistance of data obtained from Medical Information System. Consent

Forms were circulated among them. 45 of them respond positively while the remaining five persons were not ready to issue consents. Two among them were not ready to participate in the activity because they were not willing about their prescriptions to be analyzed. Other three did not even mention the reason behind their refusal to participate. So finally a Test group of 45 members were obtained.

### 2.2. Monitoring of Prescriptions

Now the prescriptions of each of these members of selected group were monitored for thirty different days throughout a complete calendar year, starting from June 1, 2016 till May 31, 2017. All the medicines recorded in those prescriptions were recorded and were translated to their generic names in order to make their identity crystal clear. Among the prescribed medications, the percentage of herbal drug was recorded.

### 2.3. Applying Statistical Tool

Results were presented by applying statistical tool (SPSS). A clear picture of tendencies and trends of inclusion of herbal medicines in the prescriptions among the prescribers of District Bannu was produced.

## 3. Results and Discussion

Among the participants, 20 (44%) were General Physicians, 5 (11%) were Gastroenterologists, 7 (15.5%) were Pediatricians, 5 (11%) were Urologists and 8 (18.5%) were Pulmonologists. The comparison of prescriptions with respect to the herbal drugs showed that 14 (31%) members did not prescribe a single herbal drug in the entire session of survey while 31 members (69%) prescribed at least one herbal product.

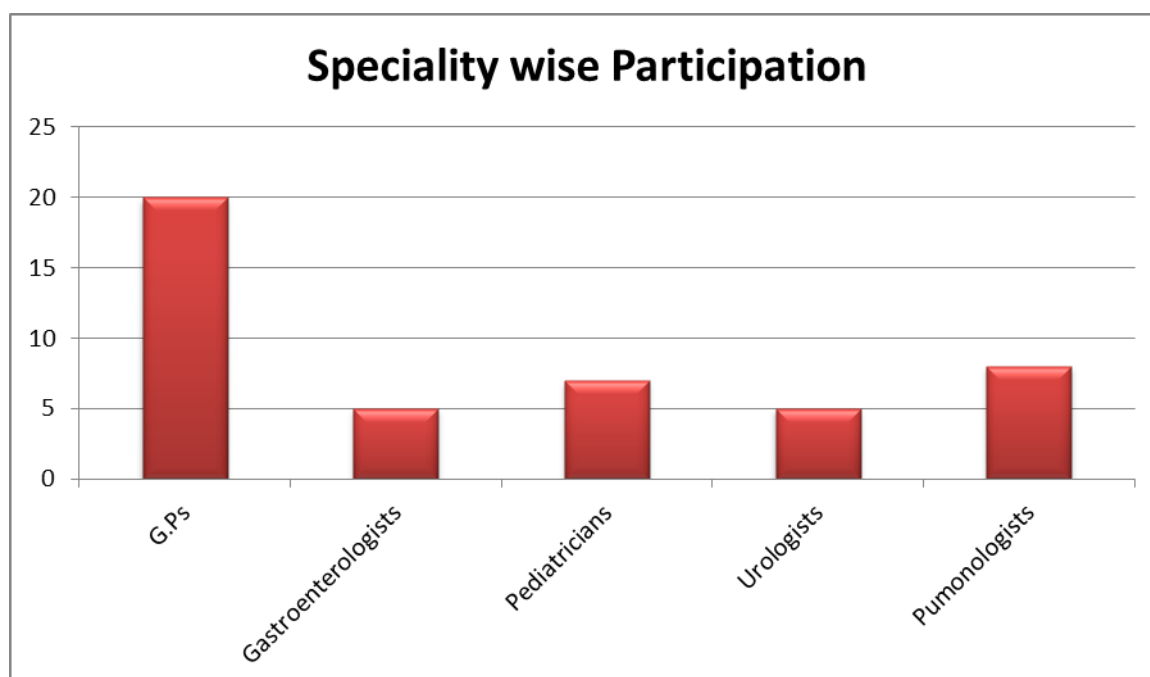


Fig 1. Graph revealing specialties of the participant members

## Extent of Herbal Drugs Prescribing

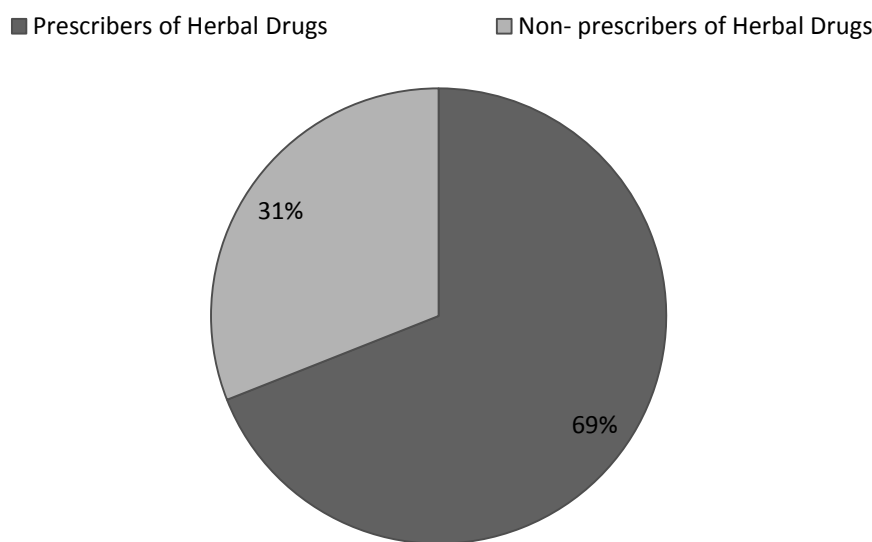


Fig 2. Graph showing status and extent of prescribing herbal drugs

Among those who incorporated herbal drugs in their prescriptions. Majority used to suggest them for minor ailments including pain, cough, Gastro Intestinal disturbances etc. very minute extent of prescriptions included herbal drugs for major problems. The detailed picture is given in the tables 1.

This study reveals an uplifted pattern of herbal drugs prescribing among the doctors of the area. This practice is found to be increasing with the passage of time due to one or the other reason. Application of these obtained results on the entire country of Pakistan will surely make us aware about the ongoing practice of prescription in the whole country. On the other hand it has been proved by D. K. Rohra et al., 2006 that Majority of the claims made by the manufacturers of herbal drugs in Pakistan are found to be fake especially regarding the efficacy and safety of their products. Moreover the prescribers use the representatives of these manufacturers as the only source of information regarding herbal drugs because there is no such subjects being taught during the undergraduate or post graduate medical education which may make the medical professionals aware regarding the plants and herbal drugs. These all have created an alarming situation regarding the questionable efficacy as well as the safety of the herbal products especially when there is no system available to monitor the standardization of these products at government level. Government of Pakistan is highly recommended to immediately put forward certain legal decisions in this regards so that occurrence of any possible mishap may be prevented.

## 4. Conclusion

It is concluded that a huge number of prescribers are going to be involved in suggesting herbal drugs to their patients for various illnesses. Moreover this practice is increasing day by day with the increase in the number of herbal products introduced into the market.

## References

- [1] A. O. Ogundare & A. I. Akinyemi, "Synergistic effect of the leaf extract of *Ficus Capensis* (LINN) and *Sorghum Bicolor* (LINN) moench against some human bacterial pathogens", FUTA Journal of Research in Sciences, 2013, 9(1), pp. 94-100.
- [2] D.J. Newman & G. M. Cragg, "Natural products as source of new drug over the 30 years from 1981-2010", Journal of Natural Products, 2012, 75(3), pp. 311-335.
- [3] B. A. Beutler, "TLRs and Innate immunity", ASH, 2008, 99(2), pp. 2011-215.
- [4] M. Blumenthal, A. Goldberg A, "Herbal Medicine: Expanded commission E monograph", 2000, 133 (6), pp. 487.
- [5] S. F. Khan, F. Ullah, M. K. Khan, A. Jan, S. Raza, H. Shah, "Effect of social media addiction on compliance in the patients of district Bannu, Khyber Pakhtunkhwa", International Journal of Basic Medical Sciences and Pharmacy, 2016, 6 (2), pp. 21-25.
- [6] W. Jia, W. Yuan Gao and L. Tang, "Antidiabetic herbal drugs officially approved in China", 2003, 17(10), pp. 1127-1134.
- [7] R. D. E. Sewell, M. Rafeian-Kopaei, "The history and ups and downs of herbal medicines usage", 2014, 3(1), pp. 1-3.
- [8] N. D. Yarnell, J.D. Abascal, "Dilemmas of traditional botanical research", Herbal Gram, 2002, 55: pp. 46-54.
- [9] C. Wiart, "Ethnopharmacology of medicinal plants, New Jersey: Human Press, 2006, 50: pp. 1-50.
- [10] H. Nordeng & G. C. Havnen, "Impacts of socio-demographic factors, knowledge and attitude on the use of herbal drugs in pregnancy", Acta Obstet Gynecol Scand, 2005, 84(1), pp. 26-33.
- [11] W. Abebe, "Herbal Medication: Potential for adverse interactions with analgesic drugs", Journal of Clinical Pharmacy and Therapeutics, 2002, 27(6), pp. 391-401.