



RURAL ACCEPTABILITY OF ANTI-QUACK MEDICAL SOFTWARE TO IMPROVE PERIPHERAL HEALTH CARE

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ABSTRACT

The rural health care of India is in shambles and the masses are at the mercy of local quacks who not only misdiagnose the case but practice all sorts of unethical measures. Surprisingly 48% of population of UP is treated by quacks and another 8% by faith-leaders. Even well off households (43.1%) make use of these quacks. This paper intends to introduce the rural acceptability of a short term genuine treatment offered to the patient free of cost based on a unique software with an aim to allay the acute sufferings and buy some time before the patient can reach a big center. This unique computer program incorporates common patient complaints and there after decides the cocktail of treatment regimen at a click of the mouse. Its rural testing has shown encouraging results. This concept is likely to eliminate the quacks or alternatively the quacks are going to adapt a scientific approach through this program. However under no circumstance can this software substitute for a qualified doctor but yet can prevent mishaps by quacks and better guide a majority of masses.

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INTRODUCTION

The rural health care of India is in shambles and there is a great disparity amongst the health care providers and receivers. While good health care today is a dream, the qualified health care providers are seldom available for masses. The privatization of education especially in the medical sector has been further instrumental in producing substandard qualified graduates who in fact learn with time only. The graduates from a good medical institute (government or private) seldom opt for rural practice but look for greener pastures abroad or settle down in big cities. For a graduate from a usual private institute, the amount spent in their education is far too much and even after devoting many years in obtaining a substandard education, they have an easy option of practicing in a village. There they land up struggling with local quacks and faith-leaders who have a better patient clientele. Unless they have a good local background, their survival is at stake and they leave such areas. Hence the masses are at the mercy of local quacks who not only misdiagnose the case but practice all sorts of unethical measures. Majority of medical ailments are of trivial nature and they cheat people to make a ransom for their own. The status of Uttar Pradesh (most populated state of India) is reflected by the following quote (adapted from 'The Times of India' daily Lucknow Edn. 27-JUN-2005 by Mohan A 2005).

"Today UP has the largest public sector health infrastructure. Almost for every 6000 population there is some public sector health facility available (at least a subcenter). However only 9% of people actually make use of this in case of ordinary ailments. Unlike the normal perception, a very large number of private sector health providers exist in the state, a vast majority of which are quacks. Surprisingly 48% of population of UP is treated by quacks and another 8% by faith-leaders. Even well off households (43.1%) make use of these quacks. In contrast the government health care providers are infrequently visited. The World Bank report projects that one of the major reason for poverty in UP is the health related expenses and burden of hospitalization. Despite the fact that more than half of the state population is being treated by quacks, various legislations and court orders including drives have been a failure, as these quacks still exist and are preferred. Ironically the state lacks a proper listing of genuine health care providers." This paper intends to introduce the rural acceptability of a short term genuine treatment offered to the patient free of cost based on unique software with an aim to allay the acute sufferings and buy some time before the patient can reach a bigger centre.

MATERIAL AND METHODS

The main step of this study includes designing of a unique computer software (by the first author) incorporating the

inclusion of various patient complaints and there after deciding the cocktail of treatment regimen at a click of the mouse. For this all the authors participated in a month long camp at a village Durgaganj (district Hardoi UP) to collect all the possible complaints from the patients attending the camp. Thereafter a protocol was created in which the different combination of symptoms was assigned different treatment protocols. The main concern was to address the acute symptoms with which the patient presented and management of acute crises for the time (2-3 days) till he/ she gets a proper authentic advice at a bigger centre. The next step was to test this software and advice the patients accordingly. For this a week camp was conducted at the same village and apart from the tailored medical advice, the patients were followed up after 3 days to assess the patient condition. Caution was taken regarding the presence of a medical doctor (second and third authors) throughout the course of a pilot testing of this software by the first author. A preformed questionnaire was evaluated to appreciate patient satisfaction during the process.

RESULTS

The list of symptoms that were incorporated while designing this software is shown in table 1. It is worth noting that symptoms signifying acute emergency such as respiratory distress, active bleeding, unconsciousness, stroke, labour pains, accidental injuries / burns, poisoning etc were not included.

Table 1

Sore throat / pain in throat	Backache
Difficulty / pain in swallowing	Jaundice
Hoarseness voice	Pain in limbs
Ear ache / ear itching	Pain in teeth
Headache	Chronic non-healing sore lesion suggestive of cancer
Stomach upset	Diminution of vision
Sour eructation	Diminution of hearing
Diarrhoea / constipation	Generalized weakness
Sneezing / nasal discharge	Burning / increased frequency of micturition
Off and on nasal bleeding	Pain in tooth
Pain in upper abdomen	Pain in lower abdomen
Pain in abdomen with loose motions	Pain in abdomen with constipation
Pain in right lower abdomen	Pain in right upper abdomen
Painful menses	Vaginal discharge
Irregular/ heavy periods	Nausea & vomiting
Vaginal bleeding on contact	Itching in perineum

The proprietary medicines included in the treatment protocol are depicted in table 2.

Table 2

Group	Medicines
Anti-inflammatory	Paracetamol, Diclofenac
Anti spasmodic	Drotaverine, Buscopan
Antibiotics	Amoxicillin, Norfloxacin, Roxithromycin, Metronidazole, Nitrofurantoin
Antifungal	Clotrimazole
Probiotics	Yeast
Antacid	Gel(Aluminium –Magnesium hydroxide) Ranitidine
Antiallergic	Cetirizine, Chlorpheniramine
Mucolytic	Bromhexine
Miscellaneous	B-complex, methylcobalamin, ORS mixture, Calcium
Antihypertensive	Amlodipine
Antianxiety	Alprazolam
Indigenous preparations	Alum powder, Turmeric powder, Kattha powder, Heeng powder, Neem twigs
Anti-emetic	Metoclopramide
Deworming	Albendazole
Hematinic	Ferrous sulphate

No injectable drugs were included in this list. In addition some indigenous medications corresponding to home remedies are also included. A specific combination of medications was selected for a specific set of symptoms and this was the main aim of the software program.

The record of 91 routine patients including those with trivial acute or chronic problems as seen during the week-long camp is depicted in table 3. As expected majority of patients had multiple problems and hence fulfilled more than one diagnostic criteria as seen in table 3. Majority of the patients complied with the treatment advised and were satisfied with the response. However still many that needed a specialist treatment or surgery or further workup were referred. Very few were defaulters.

Table 3

Symptoms suggesting the Diagnosis of	Total patients (N)	Complied with treatment / follow up (N)	Improved (N)	Needing referral (N)
Allergic rhinusinusitis	23	23	21	-
Acute oropharyngitis	3	3	3	
Acute gastroenteritis	7	6	6	3
Acute laryngitis	2	2	1	
Acute otitis media	4	3	3	
Otomycosis	6	6	5	1
Dysmenorrhoea	6	6	6	
Normal pregnancy	4	4	NA	4
Osteoporosis	8	8	-	8
Hepatitis with jaundice	2	2	-	2
Acute cholecystitis	1	1	1	1
Gastritis	29	25	20	5
Cramps	5	5	5	-
Tooth pain	4	4	4	4
Nonspecific headache	18	15	11	6
Weakness	22	22	12	10
Acute LRTI	1	1	-	1
UTI	3	3	1	2
Presbycusis	9	9	-	9
Cataract	11	-	-	11
Hernia	1	-	-	1
Diabetes	22	-	-	22
Hypertension	21	11	11	21
Suspected uterine/ cervical cancer	2	-	-	2
Oral cavity cancer	1	1	1	1
Dysphagia	1	-	-	1
Glaucoma	1	1	-	1
Constipation				
Amoebiasis				
Urinary tract infection				
Vulval/ Vaginal infection				
Appendicitis				
Lump in abdomen				

The patient-satisfaction parameters are depicted in table 4. It is worth noting that despite a total relief being appreciated in only 1/3rd of the patients, only 5 dropped out of our service as the majority had faith in us and were satisfied. We could do very little for 20 odd patients except referral while another 10 patients lost patience in our documentation process.

Table 4

Satisfaction parameters	Number of patients (of total 91)
% improvement in symptoms	100% = 33 patients
Referral to higher center	40- 80% = 33 patients
Satisfaction in Time taken in waiting	20 patients
Satisfaction in Time taken in documentation	90 patients
Availability of drugs	81 patients
Behaviour of team	91 patients
Dropped to follow up	5

Even then their cooperation index was high and were satisfied with our honest approach.

DISCUSSION

It is clear that nothing much was offered by our team except counselling, honest referral and basic medication for a few days to support these patients. Many self remitting problems such as allergic rhinitis etc were totally relieved and hence unnecessary expenditure by the patient could be prevented. Since majority of the routine ailments seen in day to day practice are of trivial nature, an approach like this is likely to benefit the masses. The earning of the quacks is based on treatment of these illnesses and thereby gaining the confidence of the patients. Once such patients suffer a grave disease like cancer, their faith on these quacks just delays the diagnosis and thereby adds to their sufferings. With a scarcity of qualified doctors in villages, a system is needed to provide the basic treatment in case of a trivial problem as well as a timely referral to a proper hospital which can address the health care needs of the patient. This can avoid an unnecessary encounter with a quack which is not only a financial strain on the patient but also misguides & offers unethical, irrelevant treatment.

This software fulfils the aim of addressing the acute health needs of a patient in the villages till appropriate facility may be reached for optimal health support. It is designed to be operated by a non-medical person. Although our testing was done under close observation of a team of 2 doctors, they did not interfere in the treatment protocol except guiding those critical cases (such as respiratory distress, active bleeding, unconsciousness, stroke, labour pains, accidental injuries / burns, poisoning) for an immediate referral. The diagnosis is not indicated in the software but the various symptom complexes have been created that include the different permutations of various symptoms corresponding to diagnostic criteria. This software has been purchased by Technovate India Ltd. Bangalore and the first author is likely to share the patenting rights with the company. Moreover the first author is involved in the process of its refinement as well as translation in regional languages across the country.

The ultimate aim of the software designer (the first author) is to encourage the government to implement this software with at least one computer operator in the village so that a better dissipation of this concept for enhanced basic health care can be achieved. Furthermore the first author plans to club the preventive aspects of health care with this concept in future. The suggested protocol of running this software program involves 3 steps:

1. Ensure that the patient does not have any of the following life threatening complaints like respiratory distress, active bleeding, unconsciousness, stroke, labour pains, accidental injuries / burns, poisoning. In such cases the patients should be referred to a higher centre immediately.
2. Before entertaining any patient, it has to be made clear that this treatment is only for next couple of days so that the patient can make arrangements for his travel as well as observe any significant improvement. Since this is instituted by a non-medical person based on past positive experiences, any harm will not be the responsibility of the computer operator.
3. Once the patient consents the computer operator selects the symptoms of the patient in a drop-box menu and clicks to obtain a treatment protocol on the screen. Such treatment protocol may be printed along with the consent form (to be signed by the patient) and handed over to the patient. In addition a final advice may also be given as to attend a higher centre as soon as possible if the condition does not improve.

This concept is likely to eliminate the quacks or alternatively the quacks are going to adapt this program. Hence a better 'quack-performance' can also be achieved towards attaining a better health care in underprivileged areas. Many government programs to educate quacks have failed in past and may be with no extra burden on ex-chequer, the treatment schedule offered by quacks would be more ethical. Under no circumstance can this software substitute for a qualified doctor but yet can prevent mishaps of mistreatment by quacks and offer a better guide to the rural population.

References

1. Mohan A (2005). UP's Health system riddled with quacks (State of UP's economy). The Times of India daily Lucknow edition 27th June 2005, page 4.

