

# HISTORY BASED DIAGNOSIS; DOES PATIENT FACTORS AFFECT THE DURATION OF HISTORY TAKING SESSION

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## ABSTRACT

**Introduction:** A complete medical history plays a pivotal role in making the diagnosis. No doubt both history taking and communication skills of attending doctor are important in completing the history in least possible time but whether there exists patient factors affecting the duration of history taking session, this descriptive study was conducted at department of medicine HMC Peshawar.

**Material and Methods:** This descriptive study was conducted in OPD of the department of Medicine Hayat Abad Medical Complex Peshawar Pakistan from 1<sup>st</sup> August 2009 to 31<sup>st</sup> March 2010. First five patients referred for consultation on each OPD days (twice a week) were included in the study. Proforma containing relevant details of the patient was filled and the time taken from start till completion of the history was recorded in each case. Patients were then categorized into groups which were compared with regard to the average time they took while completing the history. The data was analyzed manually.

**Results:** Of the total 320 patients included in the study 180 were females and 140 were males. Among 180 female patients 70 were from Afghanistan and the rest (110) were from various districts of Khyber Pukhtoonkhwa and federally administered tribal areas (FATA). Among 140 male patients 48 were from Afghanistan and the rest (92) were from various districts of Khyber Pukhtoonkhwa and FATA. Two groups were made of these patients, first according to educational status and 2<sup>nd</sup> according to the language they narrated the history in. Average time taken by each group from the start to the end of the history was recorded and the results presented (table-1 and table-2).

**Conclusion:** Both educational status of patients and the language spoken while giving history influence the duration of history. Educational status affects the duration less compared to the language.

**Key words:** History, educational status, language.

## INTRODUCTION

A medical history, taken with relevant detail, will provide the diagnosis or diagnostic possibilities in 78% of patients<sup>1</sup>. According to Papworth "If after a well taken history the clinician has no reasonable idea of the likely diagnosis, then it is unlikely that he will be much wiser after a full examination...a good history often gives the important clue to the correct assessment of the physical signs"<sup>2</sup>. The medical history or anamnesis<sup>3,4</sup> (abbr. Hx) of a patient is information gained by a physician by asking specific questions, either of the patient or of other people who know the person and can give suitable information (in this case, it is sometimes called heteroanamnesis), with the aim of obtaining information useful in formulating a diagnosis and providing medical care to the patient. Medical histories vary in their depth and focus. For example, in an emergency setting it may be limited to important details. In contrast, a psychiatric history is frequently lengthy and in depth. History-taking may be comprehensive

history taking (a fixed and extensive set of questions are asked, as practised only by medical students) or iterative hypothesis testing (questions are limited and adapted to rule in or out likely diagnoses based on information already obtained, as practised by busy clinicians). Computerised history-taking could be an integral part of clinical decision support systems.

In obtaining a good history effective physician and patient communication is of utmost importance. According to a recent consensus statement on physician-patient communication<sup>5</sup>, "effective communication between doctor and patient is a central clinical function that cannot be delegated." For years it was commonly thought that physician patient communication was generally adequate and was not a cause for concern. More recently, however, evidence has mounted to the contrary. Numerous complaints stemming from breakdowns in physician-patient communication have been made to licensing bodies<sup>6</sup> and headlines declaring an "urgent need for MDs to relate better to patients" and criticizing the "cold, hard" manner of physicians have appeared in the medical and popular press<sup>7,8,9</sup>. Physician-patient communication problems can arise during history taking or during discussion of how the patient's problem should be managed. In general terms, communication difficulties can be

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described with reference to problems of diagnosis, a lack of patient involvement in the discussion or the inadequate provision of information to the patient.

Studies have shown that 50% of psychosocial and psychiatric problems are missed<sup>10</sup>, that physicians interrupt patients an average of 18 seconds into the patient's description of the presenting problem<sup>11</sup>, that 54% of patient problems and 45% of patient concerns are neither elicited by the physician nor disclosed by the patient<sup>12</sup> that patients and physicians do not agree on the main presenting problem in 50% of visits<sup>13</sup> and that patients are dissatisfied with the information provided to them by physicians<sup>14</sup>. History is a corner stone in the diagnosis and subsequent management of the patient. Good physician and patient communication is mandatory for history based diagnosis in shortest possible time. There may be factors both on a part of physician and patient which affect the duration of history. To determine such factors on a part of patient this study focused on their educational status and the language spoken by them while giving history.

## MATERIAL AND METHODS

This descriptive study was conducted in OPD of the department of Medicine Hayat Abad Medical Complex Peshawar Pakistan from 1<sup>st</sup> August 2009 to 31<sup>st</sup> March 2010. First five patients referred for consultation on each OPD days (twice a week) were included in the study. Proforma containing relevant details of the patient required in making a history based diagnosis was filled and the time taken from start of the history till its completion was recorded in each case. Those patients where (1) detailed history could not be taken and or (2) who could not speak Pashto and or Urdu were excluded from the study. Soon after their arrival in OPD and having occupied the seat next to physician, start time was noted, then were noted OPD slip number, patient name, age, gender, nationality, educational status, language spoken, chief complaints, history based diagnosis and end time. Though taken in each case but the details of history of present illness, past history, social, vaccination, drug, family and surgical history were not included in the proforma.

Total time taken (from the start to the end of the history) was recorded in each case and then average time taken by different groups was compared. The groups were made according to educational status and the language spoken while taking the history. According to the educational status patients were grouped as illiterate, under metric, metric, intermediate, bachelor, master and Madrassa. According to the language spoken while giving history patients were divided into Pashto group and Urdu group. Time taken from start of the history till its completion

was recorded in each case. The data was analyzed manually.

## RESULTS

Of 320 patients included in the study 180 were females and 140 were males. Among 180 females 70 were from Afghanistan and the rest (110) were from various districts of Khyber Pakhtunkhwa and federally administered tribal areas. Among 140 males 48 were from Afghanistan and the rest (92) were from various districts of Khyber Pakhtunkhwa and federally administered tribal areas. Two groups were made of these patients, first according to educational status and 2<sup>nd</sup> according to the language they narrated their history in.

According to Educational status 7 groups were made; uneducated (illiterate), under metric, metric, intermediate, bachelor, master and Madrassa. Of the total 320 patients 96 were uneducated and they all narrated their history in Pashto. 64 were under metric, of which 60 narrated their history in Pashto and 04 in Urdu. Among 60 matriculate patients 45 and 15 spoke Pashto and Urdu respectively. Of 32 patients from intermediate group 26 and 06 give history in Pashto and Urdu respectively. Similarly of 30 bachelors, 18 masters and 20 from Madrassa narrated their history in Pashto (11, 10, 17) and Urdu (11, 08, 03) respectively. Average time taken by each group from the start to the end of the history was recorded and the results presented (table-1 and table-2).

Table-1. Time taken according to educational status

Number of patients	Educational status	Average time taken
96	Illiterate	9 min 35 sec
64	Under metric	9 min
60	Metric	8 min 55 sec
32	Intermediate	8 min 40 sec
30	Bachelor	8 min 45 sec
18	Master	8 min 10 sec
20	Madrassa	9 min 10 sec

Table-2. Time taken according to language spoken

Number of patients	Language	Average time taken
273	Pashto	9 min 38 sec
47	Urdu	7 min 00 sec

## DISCUSSION

Taking a detailed history in shortest possible time needs expertise. A medical history taken with relevant details will provide the diagnosis or diagnostic possibilities in 78% of patients<sup>1</sup>. Although history taking duration is affected by skills of the physician but there may also be patient factors affecting the duration of history. To keep the doctor factor constant in our study all the histories were taken by a single physician. To determine patient factors affecting the duration of history we focused on educational status of patients and the language in which history was given. Ninety six (96) patients in our study were illiterate and all of them spoke Pashto. On an average it took 9 minutes and 35 seconds to complete a history from them. Contrary to that the most educated group of patients (18 masters) took on average 8 minutes and 10 seconds to complete their history. Thus masters took 1 min 25 seconds (13.36%) lesser time than uneducated group in completing the history. Good communication between physician and patients from master group seems to be the reason for this finding.

Good communication between physician and patient is important in taking a history and then making a diagnosis. Poor communication can often lead to poor health management.<sup>14, 15</sup> while the above mentioned two groups (at extremes) showed difference of 1 min 25 seconds but other groups did not show such a pattern. Under metric group of patients (64 patients) took 9 minutes in completing history while matriculate group of patients took 8 min 55 seconds, intermediate group took 8 min 40 seconds, bachelors took 8 min 45 seconds and those from Madrassa took 9 min 10 seconds. Looking at table-1 it is clear that compared to uneducated, patients from master group took significantly little time but there was not much difference among metric group (8 min 55 sec) and under metric (9 min). Moreover the pattern was not uniform in a sense that those with higher education spent lesser time compared to those with lower education as intermediate group (lower educational status than bachelor) took little time than bachelors (8 min 40 sec vs. 8 min 45 sec). In short it was observed that educational status other than in the 2 extreme groups have little or no effect on the duration of history. Patients who narrated their history in Pashto (273) took 9 min 38 seconds while those who narrated history in Urdu (47) took 7 minutes.

The reasons for this much high difference (2 minutes and 38 seconds) were not clearly understood. However one explanation may be that in Urdu speaking group (47 patients) none was illiterate and all had some level of education while in Pashto speaking group (273 patients) uneducated patients were 96. The other reason may be that number of patients who gave history in Urdu were less compared to those who narrated history in Pashto (47 vs. 273).

An important factor observed during history taking was that those who narrated history in Urdu were more familiar with medical terminology and the names of various body organs compared to those who did it in Pashto. Moreover it was observed that repetition and explanation were needed more with those patients who narrated history in Pashto compared to those who narrated in Urdu. Another important and interesting observation was the difference in time taken to complete the history by masters who narrated history in Urdu, compared to masters who narrated in Pashto (an intra sub group comparison). 10 Pashto speaking masters took 8 min 20 seconds while 08 masters who narrated their history in Urdu took 8 minutes.

Overall both the educational status of patients and the language spoken during history taking affect the duration of the history. Effect of language is more than that of educational status of patients. More studies need to be done to understand these factors in detail to enable physician to take detail history in shortest possible time.

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