

**Factors influencing the performance of
Health Assistants in selected townships, Myanmar**

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A cross-sectional study was conducted to determine factors influencing the performance of Health Assistants (HAs) from May 2006 to July 2007 in twenty-three townships of plain and hilly regions of Myanmar. Out of 79 HAs, 61 (77.2%) males and 18 (22.8%) females were interviewed with structured questionnaire. Mean age of HAs, mean years of service and mean distance from township hospital were 41 ± 9 years, 15 ± 11 years and 15 \pm 9 miles respectively. Both intrinsic and extrinsic factors were asked. Regarding intrinsic factors, positive response rates of perception, satisfaction, willingness, attitude and motivation were observed at 68.4%, 68.4%, 92.4%, 65.8%, and 92.4% respectively. Extrinsic factors like locality of Rural Health Center (RHC) (plain or hilly region), transportation to RHC and public transportation from RHC to township hospital were associated with performance of HA and it was statistically significant at $p < 0.05$. Reconsideration should be made on deployment of resources to upgrade infrastructure in health system especially in rural area to attain effective performance of assigned health staff.

INTRODUCTION

Health Assistant (HA) is the key person among Basic Health Staff (BHS). At the village level, team composes of BHS, headed by HA carries out Primary Health Care including both public health and disease control. Under each Rural Health Center (RHC), there are four sub-centers staffed by midwives and Public Health Supervisors Grade 2 (PHS II) [1]. Nearly 70% of people living in rural areas can seek health care from Rural Health Centers (RHCs) or Station Hospitals run by HA and Station Medical Officers (SMO) respectively. Besides, HAs are leading midwives and other health staff energetically in carrying out health tasks like health education, environmental sanitation, communicable diseases control, maternal and child health care, school health nutrition, birth and death registration and medical care. The term performance is meant to focus on the behavior of a health

worker including his organization retention and use of specialized knowledge as well as his attitude and interaction with other people. However, this may be different depending on skill, motivation, geographical locality and available resources. Thus, assessing the performance of HA in different localities of the country would be applicable in health management system by the health planners and authorities.

General objective

- To find out the factors influencing the performance of HAs which can be applicable to health management system to produce sustainable improvement.

Specific objectives

- To access the performance of HAs in different areas of primary health care in the assigned areas.
- To determine the factors that influence the performance of HAs assigning specific jobs.

MATERIALS AND METHODS

Study design

A cross-sectional, descriptive study was applied.

Study population

A total of 79 Health Assistants posted at various health centers of the country were included

Study areas

Twenty-three townships of various states and divisions where the selected 79 HAs were posted, namely: Myitkyina, Winehmaw and Moekaung from Kachin State; Hakha, Htantalan and Phalan from Chin State; Thenni, Hsipaw and Naungcho from Northern Shan State; Taunggyi, Hopone and Naungshwe in Southern Shan State; Sagaing, Myinmu, Chaungoo and Myaung from Sagaing Division; Magwe, Minbu, Yenanchaung and Chauk townships from Magwe Division; Kyaukse, Yamethin, and Meikhtila from Mandalay Division.

Data collection

Face-to-face interview with a set questionnaire was undertaken. Checklist was also developed for assessing performance of HA. Observation of RHC structure and functional analysis was done. Secondary data analysis of reports and returns of RHC was conducted. Performance was assessed by checklist developed from the tasks rendered by the HA, based on seven categories of health functions assigned by the government. Based on the activities performed by the HA, good and poor performances were categorized. Both extrinsic and intrinsic factors regarding HA performance were asked with the pre-tested questionnaire. For factors influencing HA performance, two factors, extrinsic and intrinsic were added. Assessment of locality of RHC and accessibility to RHC were defined as extrinsic factors. Perception, willingness to work, attitudes and motivation of HA were assessed for intrinsic factors. Observation of RHC was performed to validate the answer

by HA obtained from the questionnaires. Reports and returns of respective RHC were also reviewed to check the consistency of the answers.

Data management and analysis

Data were entered, stored, and managed by Epidata. Data cleaning and consistency check was done. Crude odds ratio (OR), adjusted OR were calculated by Epi-info and multivariate analysis by STATA version 8.

RESULTS

A total of 38 villages were served by one HA and the population coverage was found to be 27,206. Socio-demographic characteristics of HA were reviewed and it was found that 77.2% were males whereas 22.8% were females. Most (63.3%) resided away from RHC and only 36.7% were living in the same locality of RHC. Regarding educational status, 63.2% were graduated and 36.8% were high school level. Mean age of HAs was 41 ± 9 years with a range of 23 to 58 years. Mean year of service was 15 years ranging from 3 to 38 years. The mean distance from township to RHC was 15 ± 9 miles with a range of 2 to 40 miles.

Table 1. Locality of RHC and accessibility

Particulars	Number (%)
<i>Locality of RHC</i>	
Plain region	60 (75.9)
Hilly region	19 (24.1)
<i>Transportation to RHC</i>	
Available	50 (63.2)
Not available	29 (36.8)
<i>Public transportation from RHC to township hospital</i>	
Accessible	58 (73.4)
Inaccessible	21 (26.6)

In this study, majority of RHCs (75.9%) are located in plain region and 24.1% are in hilly region (Table 1). Utilization of RHC was mainly influenced whether it has been easily accessible by means of walking, using bicycle or bullock carts etc. It was found that 63.2% of RHC were in localities where the community can reach easily. For

referral cases the community relies on public transportation. Therefore, public transportation is a key factor for utilization of RHC and it also indirectly influences the performance of HA. This situation was evident in immunization activities. If the location was easily accessible there would be more coverage of immunization.

Factors influencing performance

Factors influencing performance were assessed by intrinsic and extrinsic factors. For intrinsic factors, job related perception, satisfaction, willingness to volunteer, and motivation were included. For those intrinsic factors all categories were found to be good at minimum 65.8% to maximum 92.4% (Table 2).

Table 2. Perception, satisfaction, willingness, attitude and motivation of HAs

Intrinsic factors	Number (%) (n=79)	
	Good	Poor
Perception	54 (68.4)	25 (31.6)
Satisfaction	54 (68.4)	25 (31.6)
Willingness	73 (92.4)	6 (7.6)
Attitude	52 (65.8)	27 (34.2)
Motivation	73 (92.4)	6 (7.0)

Regarding extrinsic factors, localities of RHC, accessibility to RHC and transportation from RHC to township hospital were analyzed. Chi-square test was applied. Table 3 indicates that there is association between extrinsic factors and performance of HA in all study areas.

Table 3. Performance of HA by extrinsic factors

Factors	Performance (n=79)			Adjusted OR
	Poor	Good	Total	
<i>Locality of RHC</i>				
Plain region	40	21	61	4.42 p=.01
Hilly region	17	1	18	
<i>Transportation to RHC</i>				
Easy to reach RHC	35	19	54	3.49 p=.03
Not easy to reach RHC	22	3	25	
<i>Accessibility of transport from RHC to hospital</i>				
Accessible	36	19	55	3.02 p=.04
Not accessible	21	3	24	

Association between job performance and localities of RHC (plain or hilly region) was statistically significant. Therefore, performance of HA in plain region was 4 times better than that of HA in hilly region. Performance and availability of transportation to RHC was also significantly associated. Consequently, performance of HA in area where transport is available to RHC was 3 times better than that of HA in area where transport is unavailable to RHC. Association between performance and public transportation from RHC to township hospital was statistically significant as well. This indicated that for the RHC where the public transportation was accessible, performance of HA was 3 times better than that of HA in the RHC where public transportation was inaccessible.

DISCUSSION

A total of 79 HAs working in various health centers of 23 townships in plain and hilly region were included in this study. According to a report from Turkey, 60 % of health care workers were satisfied with their jobs. Working environment and income were the most important factors for dissatisfaction. Health care workers at public health centers in the provinces have low satisfaction scores. Improving working conditions and income may improve the overall quality of health care provision [2].

Manongi *et al.* reported that factors causing de-motivation among health care workers working at primary health care facilities were workload, staff shortages, lack of inter-professional exchange, and lack of supervision [3]. Nilar Tin *et al.* highlighted that 67% of BHS were satisfied in works. Although some complained on a lot of paper work, majority of BHS agreed that they enjoyed field work, giving services including health education [4]. In this study, the performance of HA was not influenced by the intrinsic factors like perception, satisfaction, attitudes and motivation of the study group. It seemed that the HA have

positive attitude towards performing health activities by revealing response rates of perception, satisfaction, willingness, attitude and motivation at 68.4%, 68.4%, 92.4%, 65.8%, and 92.4% respectively. The intrinsic factors were not associated with performance of HAs in this study. But there was an association between extrinsic factors like locality of RHC (plain or hilly region), transportation to RHC and public transportation from RHC to township hospital and performance of HAs which was statistically significant. Despite a series of work study and performance of health system in Myanmar, there is still a gap of knowledge on providing extrinsic and intrinsic factors influencing health staff's performance. The findings of this study provided that extrinsic factors need to be highly considered and reconsideration should be made for upgrading infrastructure to attain effective performance of health staff especially in rural area.

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