Short Report

Outcome of Patient Referral made by the Lady Health Workers in Karachi, Pakistan

Habib Ahmed Afsar*, Muhammad Younus**, Asma Gul

Departments of Community Medicine*, Epidemiology and Community Health Sciences, Aahung*, Karachi, College of Human Medicine, Michigan State University, East Lansing MI, USA** and The Aga Khan University, Karachi.

Abstract

The outcome and consequences of referral made by the Lady Health Workers (LHWs) are largely unknown. This cross sectional study was conducted as part of a larger study and aims to assess outcome of patients' referrals made by the LHWs in Karachi, Pakistan. Only 4% of patients referred visited government facilities, the rest having visited private physicians and in-formal practitioners. The median cost of the treatment was 200 Pakistani Rupees (PKR) and 1230 PKR as out -patient and in-patient respectively with almost half the patients (41.3%) borrowed money to finance their treatment. Seventy-eight (31.6%) patients were not satisfied with the management they received from the referral health facilities. Major reasons cited were non-improvement in their condition, expensive, long waiting time and rudeness of the health facility staff. Factors identified in this study should be taken into account to ensure continuity and quality of care and to provide efficient, effective and equitable health services to all.

Introduction

Patient referral services are an integral part of a well functioning health system. The goal of referral services is to ensure that the patient is dealt at an appropriate level health facility and receives cost effective and quality management.[1]

In the public health sector in Pakistan, the first rung in the referral hierarchy is the Lady Health Worker (LHW) of the National Programme.[2] Apart from Primary Health Care (PHC) activities, LHWs refer patients to the appropriate health facilities.[3] Independent evaluations have acknowledged the importance of LHWs role in first level referral.[3] Considering that women are often restricted to visit a health facility by themselves in most of the socio-cultural settings in Pakistan, LHWs are an important source of PHC at the grassroots- level.[4] However, the outcome and consequences of referral made by the LHWs are largely unknown. In Pakistan, despite an intensive network of primary health facilities, quite often individuals with ailments that could easily be managed at lower level tends to bypass and visit tertiary care institutions and thus over burden the major hospitals.[5] Dissatisfaction at the referral sites is evident from another study.[6] It is imperative to learn about the referral outcomes to be able to make certain continuity and quality of care. The study presented here is part of a larger study and aims to assess the outcome of patients' referrals made by the LHWs in Karachi, Pakistan.

Methods and Results

In a cross-sectional study conducted in Karachi, LHWs were randomly selected from a list obtained from the District Health Office. Records of the last one-month (pre-

Table. Factors associated with patient dissatisfaction at the referral health facilities in Karachi, Pakistan.

Factors associated	Dissatisfied		Satisfied		Unadjusted OR‡ (95% CI †)	Adjusted OR (95% CI)
Beneficiary status						
Yes	18	(23.1)	36	(21.3)	1.00	NS**
No	60	(76.9)	133	(78.7)	0.90 (0.47-1.72)	
Monthly income						
≥ 6000	6	(9.0)	26	(17.1)	1.00	NS**
3000 - <6000	43	(64.2)	77	(50.7)	2.42 (0.92-6.34)	
<3000	18	(26.9)	49	(32.2)	1.59 (0.56-4.49)	
Time to reach the referral site (minutes)						
<30	30	(38.5)	88	(52.1)	1.00	1.00
30 - 60	38	(48.7)	75	(44.4)	1.49 (0.84-2.62)	0.85 (0.41-1.73)
Total cost (Rupees)						
<100	20	(25.6)	38	(22.5)	1.00	NS**
100 - <500		24	(30.8)	51	(30.2)	0.89 (0.43-1.85)
500 - 2000		20	(25.6)	44	(26.0)	0.86 (0.41-1.84)
>2000	14	(17.9	36	(21.3)	0.74 (0.33-1.68)	
Borrowed money						
No	36	(46.2)	109	(64.5)	1.00	1.00
Yes	42	(53.8)	60	(35.5)	2.12 (1.23-3.66)	2.14 (1.18-3.89)
Distance from the referral site						
< 1	10	(12.8)	48	(28.4)	1.00	1.00
1 - 3	31	(39.7)	65	(38.5)	2.29 (1.02-5.12)	2.23 (0.93-5.34)
> 3	37	(47.4)	56	(33.1)	3.17 (1.43-7.04)	3.54 (1.36-9.19)
Outcome of condition						
Cured	9	(11.5)	52	(30.8)	1.00	1.00
Under consultation	44	(56.4)	98	(58.0)	2.59 (1.18-5.72)	2.58 (1.10-6.06)
Never got better	25	(32.1)	19	(11.2)	7.59 (3.01-19.17)	9.08 (3.33-24.67)

** Not significant. These factors were not significantly associated with patient dissatisfaction in the multivariate model and therefore were not included in the final model.

† Confidence interval ‡ Odds ratio

(preceding the study period) of selected LHWs were reviewed; the last eight patients referred were selected and interviewed. Sub-set of the study subjects, referred to various health facilities and who later attended the referral facilities were included in this study. Parents or immediate family members were interviewed in case the subject was <15 years of age. Data was collected using structured questionnaire on demographic characteristics (age, sex, monthly income, employment status), process of referral (distance of the referral facility from residence, means of transportation used, visited the facility alone/with someone, cost of treatment) and patient satisfaction (with regard to services and management at the referral sites, clinical services available). Descriptive statistics were computed for continuous variables, and percentages for categorical variables. Association between outcome variable and independent variables were sought using chi-square test. To observe the individual effects of each exposure variable, potential confounders were simultaneously controlled by means of multiple logistic regression and ORs with 95% CIs were computed.

Of 247 patients, 155 (62.8%) were females and 92 (37.2%) males. The mean age of the patients was 37.6±21.2 SD, 35 (14.2%) were <15 years, 72 (29.1%) between 15 and 35 years and 140 (56.7%) were >35 years of age. More than half, 126 (51.0%) patients had no formal schooling, 96 (27.9%) completed primary or secondary education and 52 (21.1%) were intermediate and above. Only 54 (21.9%) patients had reimbursement/insurance facility for their medical bills. The household income in PKR/month was ≥6000 in 67 (27.1%), 3000 to <6000 in 120 (48.6%), <3000 in 32 (13.0%) and not applicable (age <15 years) in 28 (11.3%).

One hundred forty (56.6%) patients were referred for the management of various medical/surgical conditions, 61 (24.7%) for investigations and 35 (14.2%) for diagnosis. Only 4% of patients visited government facilities, the rest having visited private physicians (61.5%) and in-formal practitioners 63 (25.5%). About 71.7% were treated as out-patients, while 70 (28.3%) were treated as in-patients. The median cost of the treatment was 200 PKR and 1230 PKR as out -patient and in- patient respectively. One hundred and two (41.3%) patients had borrowed money to finance their treatment. Fifty-nine patients (23.7%) stayed away from their work for 2-8 days.

Seventy-eight (31.6%) patients were not satisfied with the management they received from the referral health facilities. When asked about reasons for dissatisfaction, 28 (11.3%) cited that their condition did not improve, 18 (7.3%) said that the treatment was too expensive, 12 (4.9%) complained about the long waiting time and 8 (3.2%) complained the rudeness of the health facility staff. Table shows the Univariate and multivariate analysis respectively. The final multivariate model fitted well as confirmed by the Pearson goodness-of-fit test (p=0.813).

Comments

This study showed that patient after being referred by the health system, causing in many cases, an inevitable waste of resources, unnecessary and avoidable morbidity and social and mental stress. More research is needed to follow patients as they interact with various levels in the health system so that loopholes causing wastage and delays be minimized and the health system be structured to provide efficient, effective and equitable health services to all.

References

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