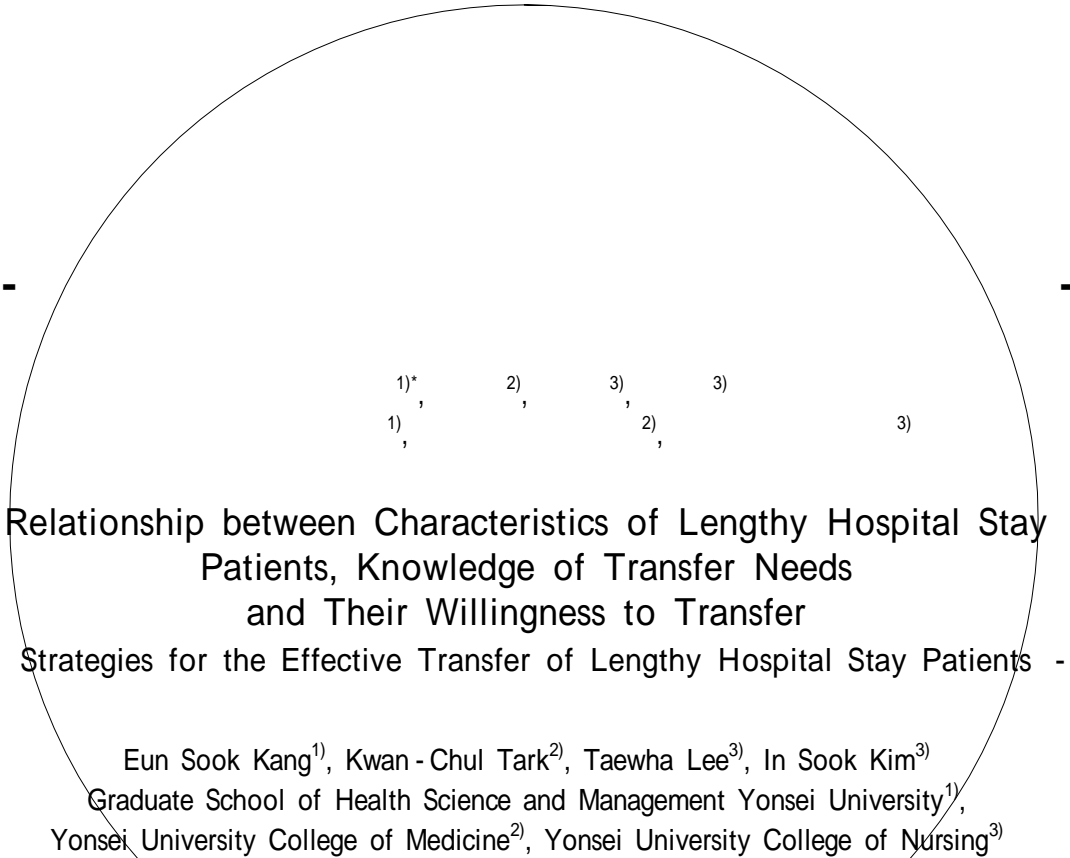


원 저



Abstract

Background: It is very common in Korea to take care of non - acute patients in an acute setting, due to the lack of long - term facilities.

Long term hospitalization increase medical expenses and decreases the bed utilization, which can affect the urgent and emergent admissions, and eventually jeopardize the hospital financially.

In this study, strategies for effective transfers to the lower levels of care, and to decrease the length of stay were presented by surveying and analyzing the

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patient's knowledge of the transfer needs, and the willingness to transfer those whose hospital length of stay was more than 30days.

Method: The survey is subject to a group of 251 patients who have been hospitalized over 30 days in a general hospital in Seoul. Excluding those that were in the Intensive Care Unit and psychiatric ward, 214 in - patients were used as participants. They were surveyed from April 9, 2002 to April 17, 2002. One hundred and thirty seven out of 214 were responded which made the response rate 64%. Data were analyzed by SAS and SPSS.

Result: Multi - variable Logistic Regression Analysis showed a significant effect in medical expenses, knowledge of referral system and the information of the receiving hospital.

The financial burden in medical expenses made the patient 10.7 times more willing to be transferred, knowledge of the referral system made them 5 times more willing to be transferred, and the information of receiving hospital makes 6.5 times more willing to be transferred.

Reasons for willing to be transferred to a lower level of care were the phase of physical therapy, the distance from home, the attending physician's advice and being unable to be treated as an out patient.

Reasons for refusing to be transferred were the following. The attending physician's competency, not being ready to be discharged, not trusting the receiving hospital's competency due to the lack of information, or never hearing about the referring system by the attending physician.

Conclusion: Based on this, strategies for the effective transfer to the lower levels of care were suggested.

It is desirable for the attending physician to be actively involved by making an effort to explain the transfer need, and referring to the Healthcare Coordinating Center, which can help the patient make the right decision.

Nationwide networking for the referral system is the another key factor that may need to be suggested as an alternative to decrease the medical expenses.

Collaborating with the Home Health Agency for the early discharge planning and the Social Service Department for financial aid are also needed.

It is recommended that the hospital should expedite the transfer process by prioritizing the cost and the information as medical expenses, knowledge of referring system and the information of the receiving hospital, are the most important factors to the willingness to transfer to a lower level of care.

Key Words: Lengthy hospital stay patients, Willingness to transfer

I.

1.

가
(3).

가

,

.

가

가

1, 2

(4).

가 / , /

3

1, 2

가

(acute short-term care)

2

1,

가 (1).

3

(5).

2.

31

85%

가

1, 2

(2).

가

2.

(1-3)

	2002	4	1	30	10
1.					12
				10	11
	1,555			13	46
	2002	4	9	30	(1).
	251				
37	214			3.	
	30			가	2002 4 9
	3			30	
				214	

1.

1.	12	,	,	,	,	,	,	,
2.	10	,	,	,	,	,	()
3.	11	,	,	가	,	,	,	,
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				,가			,가	
5.	3	,	,					
	46							

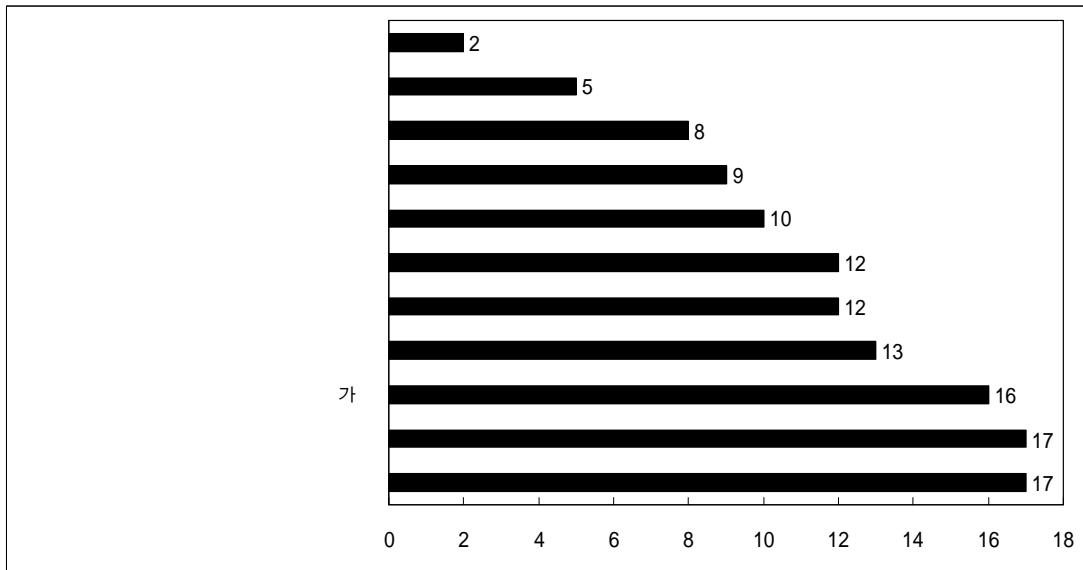
4 17 14.6% .
 214 , 82.5%
 가 86.1%
 77 137 .
 64% 가 46.7% 가
 (2).
 4.
 2)
 SAS SPSS 가
 37.2% 가 10.9%,
 , , , 8.0% .
 27.7% 가
 (Chi-Square) 24.1%,
 (Logistic Regression) 23.4%, 10.9%, 10.2%
 . 2 가 가
 42.3% .
 가 34.3% 50.4%
 . 54.7% ,
 28% 가 .
 1. , , 가 ,
 1) , 가
 137 가 60.6%, 가 38.7% 가 60.6% , 1
 40-50 가 37.2% 가 가 29.2%, 가
 , 60 30.7% . 가 9.5% . 가 69.3%
 60.6% 가 22.6% 가
 . 가 68.6%
 50.4% . 71.5%, 49.6%, 46.7%,
 () 39.4% . 가
 가 76.6% 23.4% 3-4
 가 29.2% 가 , 30 가 가 33.6% 가
 24.8%, 2 가 24.8%, 2 21.2% . 25.5%
 가 가 43.8% 가 , 가
 가 13.1% .
 100 23.4% 가 400

2.

N=137

		(%)
		83(60.6)
		53(38.7)
		1(0.7)
1-19		24(17.5)
20-39		20(14.6)
40-59		51(37.2)
60		42(30.7)
		83(60.6)
		51(37.2)
		3(2.2)
		31(22.6)
		106(77.4)
		94(68.6)
		43(31.4)
		69(50.4)
		68(49.6)
&		105(76.6)
		32(23.4)
30		34(24.8)
1		40(29.2)
2		34(24.8)
2		29(21.2)
100		32(23.4)
100	-200	28(20.4)
200	-300	24(17.5)
300	-400	17(12.4)
400		20(14.6)
		16(11.7)
		64(46.7)
		41(29.9)
		20(14.6)
		10(7.3)
		2(1.5)

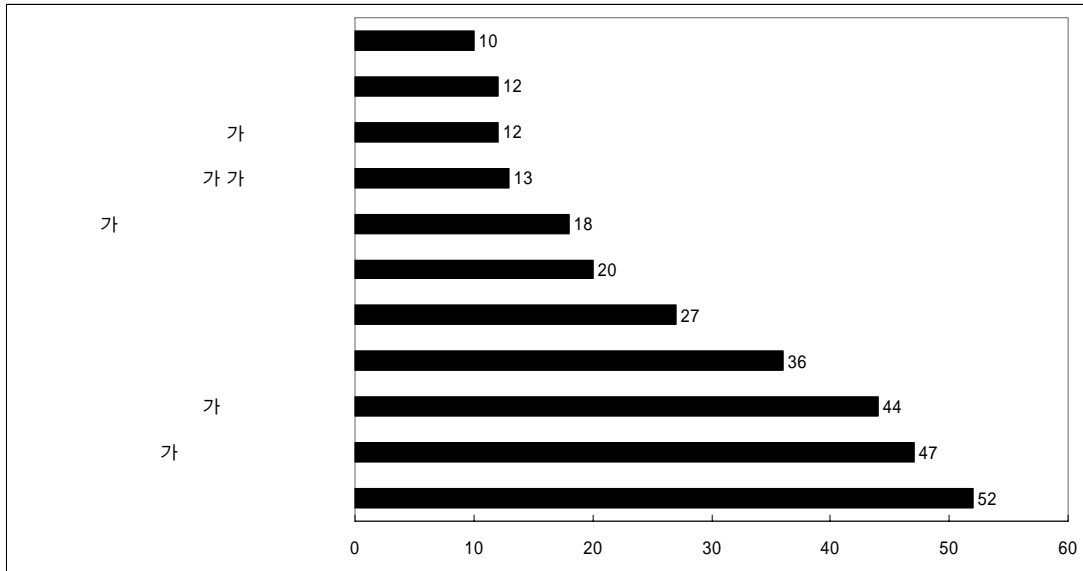
3) 가 51.1% 가
 , 60 59.9% .
 가 76.6% , 2.
 64.2% .
 1,000 52.6% 가 34.3%
 , ' 가 ' 65.7%가 가 35
 . 25.5% . 35
 가 51.4% 가 .
 ' 가 57 가 가 73% ,
 (41.6%), ' '가 62 (45.3%), ' '가 ' 가 ,
 17 (12.4%) 가 13% .
 . 137
 가 40.1% 43 (31.4%) , 92
 5-6 75.2% (67.2%) . 43 (31.4%)
 . 가 ' , ' ,



* , N = 43

1.

*



* , N = 92

2.

*

17 (67.2%) (1). 92 (p=0.049) 가 가
 ' 52 가 , (p=0.037).
 ' 가 ' 47 , ' 가 2 가 2
 가 ' 44 (2). 가 가
 19% (p=0.017)(3). 가
 41.6%가
 가 40-59 300
 가 62.0% 가
 가 16.8% .

3.

(2)

1)

가

(p=0.004)

(1)

가 .

가

(p=0.017)

가

(4).

3.

: (%)

		2			(P-value)
		32(74.4)	50(54.9)	82(61.2)	3.879
		11(25.6)	41(45.1)	52(38.8)	(0.049) [*]
		43(100.0)	91(100.0)	134(100.0)	
1-19		6(14.0)	18(19.6)	24(17.8)	
20-39		5(11.6)	15(16.3)	20(14.8)	2.974
40-59		20(46.5)	29(31.5)	49(36.3)	(0.396)
60		12(27.9)	30(32.6)	42(31.1)	
		43(100.0)	92(100.0)	135(100.0)	
		30(69.8)	52(57.8)	82(61.7)	1.298
		13(30.2)	38(42.2)	51(38.3)	(0.254)
		43(100.0)	90(100.0)	133(100.0)	
		11(25.6)	20(21.7)	31(23.0)	0.076
		32(74.4)	72(78.3)	104(77.0)	(0.783)
		43(100.0)	92(100.0)	135(100.0)	
&		28(65.1)	75(81.5)	103(76.3)	4.361
		15(34.9)	17(18.5)	32(23.7)	(0.037) [*]
		43(100.0)	92(100.0)	135(100.0)	
30		8(18.6)	26(28.3)	34(25.2)	
1		7(16.3)	31(33.7)	38(28.1)	10.157
2		13(30.2)	21(22.8)	34(25.2)	(0.017) [*]
2		15(34.9)	14(15.2)	29(21.5)	
		43(100.0)	92(100.0)	135(100.0)	
(:)	100	9(24.3)	22(26.8)	31(26.1)	
	100-200	13(35.1)	15(18.3)	28(23.5)	
	200-300	7(18.9)	16(19.5)	23(19.3)	4.921
	300-400	3(8.1)	14(17.1)	17(14.3)	(0.296)
	400	5(13.5)	15(18.3)	20(16.8)	
		37(100.0)	82(100.0)	119(100.0)	

* p<0.05

4.

				: (%)
				2
				(P-value)
	18(41.9)	15(17.0)	33(25.2)	
	10(23.3)	28(31.8)	38(29.0)	
	7(16.3)	8(9.1)	15(11.5)	
	4(9.3)	28(10.2)	32(9.9)	15.114*
	4(9.3)	9(31.8)	13(24.4)	(0.004)
	43(100.0)	88(100.0)	131(100.0)	
	14(32.6)	32(36.4)	46(35.1)	0.055
	29(67.4)	56(63.6)	85(64.9)	(0.815)
	43(100.0)	88(100.0)	131(100.0)	
	25(58.1)	43(47.3)	68(50.7)	0.983
	18(41.9)	48(52.7)	66(49.3)	(0.321)
	43(100.0)	91(100.0)	134(100.0)	
	26(60.5)	48(53.3)	74(55.6)	0.345
	17(39.5)	42(46.7)	59(44.4)	(0.557)
	43(100.0)	90(100.0)	133(100.0)	
	4(20.0)	9(22.5)	13(21.7)	
	6(30.0)	15(37.5)	21(35.0)	
	7(35.0)	2(5.0)	9(15.0)	10.135*
	3(15.0)	14(35.0)	7(28.3)	(0.017)
	20(100.0)	40(100.0)	60(100.0)	
	28(65.1)	54(59.3)	82(61.2)	
	12(27.9)	27(29.7)	39(29.1)	0.675
	3(7.0)	10(11.0)	13(9.7)	(0.714)
	43(100.0)	91(100.0)	134(100.0)	
0-2	9(20.9)	18(19.6)	27(20.0)	
3-4	13(30.2)	32(34.8)	45(33.3)	
5-6	13(30.2)	21(22.8)	34(25.2)	1.289
7-8	5(11.6)	15(16.3)	20(14.8)	(0.863)
9-12	3(7.0)	6(6.5)	9(6.7)	
	43(100.0)	92(100.0)	135(100.0)	
	18(42.9)	33(37.9)	51(39.5)	0.358
	18(42.9)	42(48.3)	60(46.5)	(0.836)
가	6(14.3)	12(13.8)	18(14.0)	
	42(100.0)	87(100.0)	129(100.0)	

* p<0.05

(3) 가 (p=0.011)(5). (p=0.001), (p=0.026), (p=0.001) 가 10.71

(4) 가 47.8% 4.95 23.9%가 6.48 (7). 가 2.96 (p=0.009). 55.9%가 가 1.51 , 2.08 24.7%가 가 (p=0.002). 1.82 48.2%가 가 가 27.2%가 (p=0.001). 가 (p=0.046)(6). (6). 1 2) (7) , 3 가 (CIHI) 1997 127

5.

: (%)

					2 (P-value)
		20(47.6)	44(48.4)	64(48.1)	0.000
		22(52.4)	47(51.6)	69(51.9)	(1.000)
		42(100.0)	91(100.0)	133(100.0)	
30-59		17(39.5)	37(40.2)	54(40.0)	1.826
60		20(60.5)	34(59.8)	54(60.0)	(0.401)
		43(100.0)	92(100.0)	135(100.0)	
		33(78.6)	70(76.1)	103(76.9)	0.009
		9(21.4)	22(23.9)	31(23.1)	(0.924)
		42(100.0)	92(100.0)	134(100.0)	
		23(53.5)	63(68.5)	86(63.7)	2.236
		20(46.5)	29(31.5)	49(36.3)	(0.135)
		43(100.0)	92(100.0)	135(100.0)	
(:)	500	8(19.0)	13(14.1)	21(15.7)	0.855
	500-1,000	14(33.3)	28(30.4)	42(31.3)	
	1,000	20(47.6)	51(55.4)	71(53.0)	
		42(100.0)	92(100.0)	134(100.0)	
		36(83.7)	53(58.2)	89(66.4)	9.018
		6(14.0)	26(28.6)	32(23.9)	(0.011)*
		1(2.3)	12(13.2)	13(9.7)	
		43(100.0)	91(100.0)	134(100.0)	
		14(32.6)	42(45.7)	56(41.5)	2.269
		22(51.2)	40(43.5)	62(45.9)	(0.322)
		7(16.3)	10(10.9)	17(12.6)	
		43(100.0)	92(100.0)	135(100.0)	
		21(48.8)	33(36.3)	54(40.3)	1.432
		22(51.2)	58(63.7)	80(59.7)	(0.231)
		43(100.0)	91(100.0)	134(100.0)	
1-4		8(18.6)	25(27.2)	33(24.4)	0.747
5-6		35(81.4)	67(72.8)	102(75.6)	(0.387)
		43(100.0)	92(100.0)	135(100.0)	

* p<0.05

6.

: (%)

				2	
				(P-value)	
		22(51.2)	24(26.4)	46(34.3)	6.898
		21(48.8)	67(73.6)	88(65.7)	(0.009)*
		43(100.0)	91(100.0)	134(100.0)	
		19(46.3)	15(18.3)	34(27.6)	9.395
		22(53.7)	67(81.7)	89(72.4)	(0.002)*
		41(100.0)	82(100.0)	123(100.0)	
(35)	&	9(47.4)	8(53.3)	17(50.0)	0.427 (0.935)
		5(26.3)	3(20.0)	8(23.5)	
		3(15.8)	3(20.0)	6(17.6)	
		2(10.5)	1(6.7)	3(8.8)	
		0(0.0)	0(0.0)	0(0.0)	
		19(100.0)	15(100.0)	34(100.0)	
		10(26.3)	15(16.7)	25(19.5)	1.028
		28(73.7)	75(83.3)	103(80.5)	(0.311)
		38(100.0)	90(100.0)	128(100.0)	
		27(67.5)	29(34.1)	56(44.8)	10.944
		13(32.5)	56(65.9)	69(55.2)	(0.001)*
		40(100.0)	85(100.0)	125(100.0)	
		11(8.1)	11(8.1)	22(16.3)	3.988
		32(23.7)	81(60.0)	113(83.7)	(0.046)*
	total	43(31.9)	92(68.1)	135(100.0)	

* p<0.05

-1998 65 가
 34.7% 10.5 .
 20 64 가 가 46.7%
 5.4 10 가 4 가 가 가
 1998 7 (8). 가 50%
 (9) 2000 가
 14 2 , 가
 6 7 가 가
 (10) 가 (11).

7.

	Parameter estimate	Standard error	Pr> chi-square	OR	95% C.I.
	-	-	-	1.000	-
	1.0842	0.6177	0.0792	2.957	(0.881, 9.922)
	-	-	-	1.000	-
	-0.2408	0.7811	0.7579	0.786	(0.170, 3.633)
	-0.0353	0.9015	0.9687	0.965	(0.165, 5.649)
	0.4125	0.8954	0.6450	1.511	(0.261, 8.735)
	0.7323	0.6770	0.2794	2.080	(0.552, 7.840)
	-	-	-	1.000	-
	2.3716	0.7444	0.0014*	10.714	(2.491, 46.089)
	-	-	-	1.000	-
	1.5992	0.7166	0.0256*	4.949	(1.215, 20.159)
	-	-	-	1.000	-
	0.5983	0.7051	0.3962	1.819	(0.457, 7.245)
	-	-	-	1.000	-
	1.8681	0.5512	0.0007*	6.476	(2.199, 19.074)

78.8%, 2가
 21.2% 가
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 가 (12).
 가 (3)
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 , 2000.
5. 가 .
 . QA 1998; 5(2):
324-334
6. 가 .
 . 가 .
 ,
2000.
7. Grazyna A, Ingvar K. Lack of integration, and seasonal variations in demand explained performance problems and waiting times for patients at emergency departments: a 3 years evaluation of the shift of responsibility between primary and secondary care by closure of two acute hospitals. *Health Policy* 2001; 55: 187-207.
8. Shelley M. Lengthy hospital stays a thing of the past. Canadian Medical Association; *Association medicale canadienne* 2000 August; 163 (4): 436.
9. 가 .
 . 가 ,
2000.
10. 가 .
 .
3, 1993.
11. 가 .
 . 가
 : 21
 .
가 , 1998; 18(1): 46-58.
12. Berki BE, Ashraft ML, Newbrander WC. Length of stay variation within ICDA-8 diagnosis-related groups. *Med Care* 1984; 22 (2): 126-142.
13. 가 .
 .
 .
 , 2001.
14. 가 . SAS
 .
 , 2000.
15. 가 .
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 .
 , 2001.

16. . , 2000.
- . , 1982.
17. . SPSS 10. 21 , 2001. 25. , , 1994: 413-416.
18. . 26. , , .
- . 가 . ,
- . , 1989. 1981.
19. . 27. . , 1995.
- . , 1987. 28. . 가.
20. . QA ; , 2000.
- . , 1989. 29. .
21. . 3 1, .
- 2 2 , 1991.
- . 2000; 11, 12 30. Kreutzer JS, etc8. Charges and lengths of stay for acute and inpatient rehabilitation treatment of traumatic brain injury 1990-1996. *Brain Injury* 2001 Sep; 15(9): 763-74.
22. . 268 . 가. , 1999.
23. . 가 .
- . , 1990.
24. . 31. Netting FE, Williams FG, Jones McClintic S, Warrick L. Policies to enhance coordination in hospital-based case management programs. *Health Soc Work* 1990; 15(1): 15-21.z