

Systematic Analysis to Improve the Activities of Daily Living Performance in Hepatoma Patients

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Abstract

The report is a trial to investigate a new model for analyzing the effect of information systems for living capacity improvement in hepatoma patients. The study participants were 124 patients who were diagnosed with hepatoma at least one year ago by internal medicine of a general hospital in local region, Korea. The analysis of the survey was achieved by respondents' oral investigation from January 18 through April 28, 2016. The result verified as statistically significant test of body and energy enhancement in the participants who have eaten quinces every day after working tool of mediating system as compared previous working tool of mediating system ($t=-4.27, p=.000$). It revealed the persistence of life quality in participants. The durability of life quality summarizes higher rate in the respondents with hepatoma than control population. The paper resulted in significant enhancement of the recovery of living capacity from disease in hepatocellular carcinoma people. It will use as working tool for developing systematic materials of mediating technology.

Keywords: Disorder, Hepatocellular Carcinoma, Living Capability, Recovery, Systematic Review

1. Introduction

Liver cancer is a carcinoma that generates in the hepatic organ. Liver cell carcinoma is discovered on clinical diseases or their symptoms as body's tumor, pain, eye's yellow color, vomiting or hepatic disorder at early stage^{1,2}.

The main cause of hepatoma is hepatic hard status like stone as a result of B type of hepatic infection, C type of hepatic infection and drinking alcohol, aflatoxin. In 2014, 285,000 mortality rates from hepatoma were because of B type of hepatic infection, 321,000 to C type of hepatic infection. When hepatoma is the metastatic stage as secondary organ from liver to heart or stomach, it appears symptoms to people with the disease^{3,4}.

Therapy for hepatocellular carcinoma and metastasis are dependent on many factors but especially on cancer mass size, advanced stage and scope of hepatic disorder. Cancer stage also plays a role very important. Advanced stage is not a poor stage, while non-invasive stage is not known for a long time to other organ. Hepatoma is not many disease in the U.K while other Asia countries are many disease⁵⁻⁷.

Operative excision to delete a cancer joints with around liver organ while conserving other hepatic tissue for normal tissue. This surgery is the best way for survival rate, but

just 11-16% of liver cancer population exists for operative excision. This is often due to advanced stage or bad hepatic status. Excision in patients with hard liver illustrates higher death rate and population with hepatocellular carcinoma indicates the higher rate than population with a non-cirrhotic liver. The estimated hepatic may be over 26% of the overall hepatic size for cirrhosis, while that may be over 35% of the overall hepatic size for cirrhosis. The total of repeat occurrence rate of liver cancer after excision is approximately 49-58%. Hepatoma recurrence rate in China is approximately 37.5% of recurrence after operation^{7,8}. Oriental countries male over 50 years old are higher recurrence rate and female^{8,9}. Therefore, this paper is aimed for systematic analysis for recovery living capacity from disorder in liver cancer population

2. Material

2.1 Formation of Creative Modeling Technology

This is to build up creative modeling technology (Figure. 1 and 2). 1) It is to find out the data of a new modeling technology in population with liver cell carcinoma 2) It

achieved the structure system of a modeling technology. 3) It indicated the formation of data conducted by creative modeling technology. 4) It is to review and manage the formation of modeling technology (Figure 1).

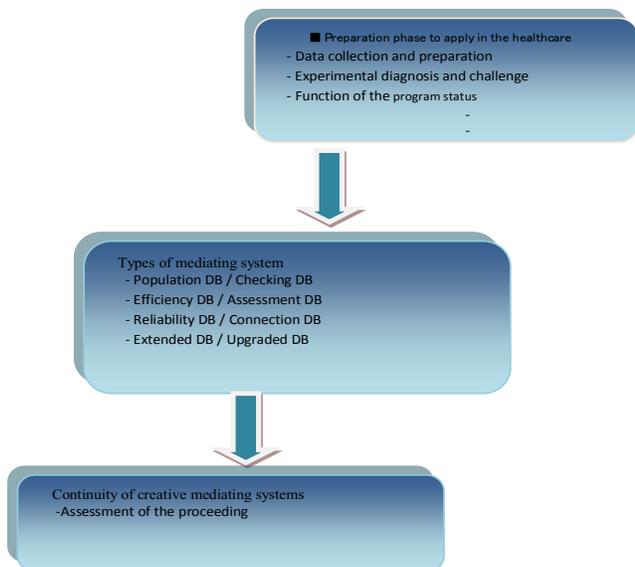


Figure 1. Design of Improved systems for population with liver cell cancer.

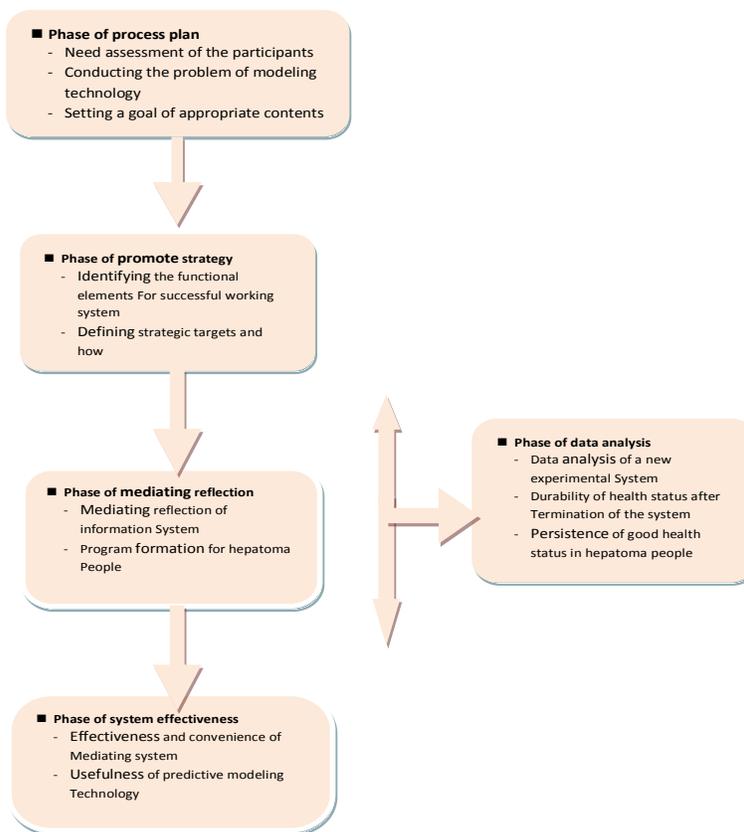


Figure 2. Formation of predictive information technology.

2.2 Study Materials

Study participants were 124 patients who were diagnosed with hepatoma at least one year ago by internal medicine of a general hospital in local region. The analysis of the survey was achieved by respondents' oral investigation from January 18 through April 28, 2016.

2.3 Methods

Data formation which revealed basic contents of participants was measured by percentage and number. The crosstab was further used for the difference of elementary data of respondents in this research. Additionally, the pair-wise t-test was checked to review the distribution of body and energy enhancement

3. Results

3.1 Basic Data of Participants in this Research

As noted below, participants with hepatoma and normal population illustrate in Table 1. Basic data of participants

are as next contents. The proportion of unmarried participants (21.0%) of the exp. members were a lower rate than the proportion (35.5%) of cont members ($X^2=4.28$, $p=0.03$). The participants' gender was analyzed. Women with 38.7% in the investigated population showed a lower rate than female with 56.5% in the normal people. Gentlemen of 61.3% in the test people showed a higher rate than male with 43.5% in the normal population ($X^2=1.75$, $p=0.04$).

Table 1. Basic data of participants in this research

	Exp	Cont	X ²	P
	Number (percent)	Number (percent)		
Marital status				
Unmarried	13 (21.0)	22 (35.5)	4.28	0.03
Married	49 (79.0)	40 (64.5)		
Sex				
Gentleman	38 (61.3)	27 (43.5)	1.75	0.04
Women	24 (38.7)	35 (56.5)		
Age				
<49	4 (6.5)	11 (17.9)	8.26	1.62
50-59	13 (21.0)	21 (33.9)		
60-69	26 (41.9)	14 (22.6)		
≥70	19 (30.6)	16 (25.8)		
Blood type				
A	21 (33.9)	19 (30.6)	11.49	1.93
B	11 (17.7)	14 (22.6)		
AB	14 (22.6)	8 (12.9)		
O	16 (25.8)	21 (33.9)		
Education				
≤ m ≤ middle	15 (24.2)	21 (33.9)	5.63	2.49
High School	27 (43.5)	19 (30.6)		
≥ College	20 (32.3)	22 (35.5)		
Total	62 (100.0)	62 (100.0)		

3.2 Difference of Body and Energy Enhancement of System Technology

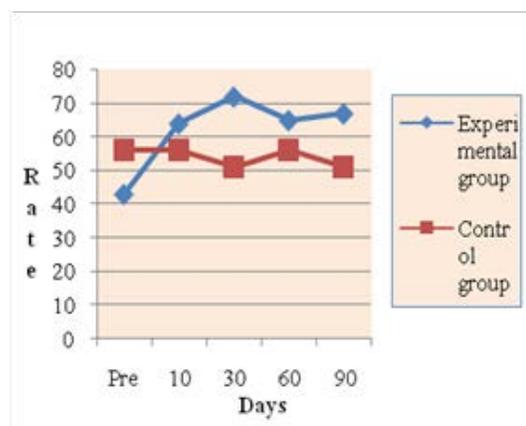
Table 2 summarizes the difference of body and energy' increase pre and post working tool of system technology. The result verified statistically significant test of body and energy enhancement in the respondents who have eaten quinces every day after working tool of mediating technology as compared before working tool of mediating system ($t=-4.27$, $p=.000$).

Table 2. Difference of body and energy enhancement of system technology

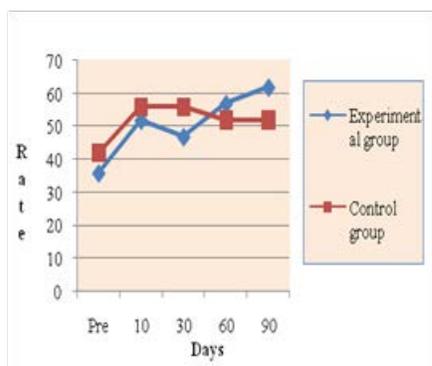
	Pre	Post	t	P-value
	Mean ± S.D.	Mean ± S.D.		
Garlic intake	35.58±0.51	42.17±1.35	-1.92	.036
Quince intake	18.23±4.39	34.82±0.72	-4.27	.000
Onion intake	27.41±0.62	49.16±2.64	-0.84	.000
Egg intake	29.05±1.27	37.52±0.42	-3.62	.000
Stretching	24.21±3.27	42.17±1.75	-5.19	.000
Warm abdomen.	32.57±2.74	40.28±4.36	-1.74	.472
Hand pressure	16.39±0.51	33.41±1.52	4.39	.000
Paresthesia	41.60±1.38	27.36±2.65	1.92	.000
Blood disorder	43.26±0.52	39.82±0.27	5.29	.035
Insomnia	37.52±3.49	31.42±3.18	3.14	.127
Depression	31.62±1.95	28.17±4.57	0.76	.584
Shoulder pressure	15.41±0.37	43.92±0.34	-5.28	.000
Itching numbness	34.28±0.59	27.57±1.92	1.81	.038
Tingling of hand	42.54±1.46	33.71±0.86	3.27	.021
Burning of hand‡	45.27±3.52	38.46±3.24	2.52	.047

3.3 Persistence of Life Quality in Participants

As noted in Figure 3, it revealed the persistence of life quality in participants. The durability of life quality summarizes higher rate in the respondents with hepatoma than normal population, although it has more experienced for 10 days after working system of mediating technology. However, the continuative effect was illustrated a decrease of more rapidly after 30 days in the liver cancer population as compared to the normal participants.



a. Persistence of Life quality.



b. Continuative effect of system.

Figure 3. Block diagram of the proposed algorithm.

4. Discussion

Main contents of this paper were a trial to investigate for systematic analysis for performance ability improvement in hepatoma population. Throughout the research, construction of a technology system for clinical information has been successfully implemented. This technology system is to investigate the broad technology contents of body status for hepatoma participations using mediating technology. The strategies for effective technology system are best for increasing the living ability rate in hepatoma people. The mediating technology effect was decreased significantly the paresthesia state in health information technology, and then a new approach is required to reduce the hypertension.

Health status related insomnia was diminished from severe state at night. The finding was similar with the previous studies on the other cancer¹⁰⁻¹³. This study suggests that participants with hepatoma should be focused on specific information technology to prevent the condition of metastasis. Based on the findings achieved by the research, it is anticipated that this may be used as effective data for developing and mediating technology for the other cancer people.

5. Conclusion

Summary contents were a trial to investigate a new model for analyzing the effect of information systems for living capacity improvement in hepatoma patients. Therefore, information system using mediating technology could be used as an effective method to enhance disease treatment. It resulted in significant improvement of the performance

ability among hepatoma participants. It could be used as working tool for developing systematic materials of mediating technology in every medical environment.

6. References

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