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¹⁾,²⁾,³⁾

The Comparison of Health Behaviors Between Fishing Area Residents and Agricultural Area Residents

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= A B S T R A C T =

Objectives: This study compared the difference of health behaviors between fishing area residents and agricultural area residents.

Methods: We carried out interview survey for 503 adult persons of fishing villages, the study area. And surveyed 775 adult persons of agricultural villages as a control area in short distance from the study area, and 1425 adult persons of agricultural villages in long distance. The proportion on health behavior was standardized to the nationwide population of the year of 2000 by sex.

Results: In male, The proportion of heavy alcohol drinking in the study area was higher than that in both controls significantly. And the proportion of trial to quit alcohol during the past one year in the study area was lower than that in both controls, but it was not significant difference. And the proportion of regular exercise in study area was lower than that in the long distant control, but it was not significant difference. In female, the proportions of drinking, smoking, and regular exercise in the study area were significantly lower than that in the long distant control respectively. There was no significant difference in trial of low salt diet between the study area and the control area.

Conclusions: When we plan the health promotion program in fishing village, we must consider alcohol

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drinking behavior of men and exercise behavior of both sex in addition to smoking behavior.

KEY WORDS: Health behavior, Fishing village, Health promotion

가 .

1995 가 .

가 .

(Green LW , 1979). 가 가

가

1995 가

(, 1983; , 1984), (, 1986; , 1988; , 1990; , 1991; , 1992), (, 1988) (, 1993).

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가 ((), , 1996; Noak, 1988). () 5 (2 , 3) 2 (4) .

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2 10 2.
 1998 11 , 12 5
 , 1999 3 , 4 2 2
 2 . 30 50 (pre-test)
 , 852
 503 (59%) ,
 1,272 775 (60.9%),
 2,799 1,425 (51.9%)
 가
 1
 가 ,
 가 (p<0.05)(Table 1).)

Table 1. Distribution of age between fishing village and agricultural village by sex

Age (years)	Fishing village(A) No.(%)	Agricultural village 1(B) No.(%)	A-B p-value	Agricultural village 2(C) No.(%)	A-C p-value
Male					
30-49	37(18.1)	63(20.5)	0.40	71(14.0)	<0.05
50-69	132(64.7)	204(66.4)		300(59.1)	
70-	35(17.2)	40(13.0)		137(27.0)	
total	204(40.6)	307(39.6)		508(35.6)	
Female					
30-49	79(26.4)	109(23.3)	0.61	138(15.0)	<0.01
50-69	165(55.2)	267(57.1)		530(57.8)	
70-	55(18.4)	92(19.7)		249(27.2)	
total	299(59.4)	468(60.4)		917(64.4)	
Total					
30-49	116(23.1)	172(22.2)	0.83	209(14.7)	<0.01
50-69	297(59.0)	471(60.8)		830(58.2)	
70-	90(17.9)	132(17.0)		386(27.1)	
total	503(100)	775(100)		1425(100)	

A: Fishing villages in Kohung-gun, Chonnam province.

B: Agricultural villages in Kohung-gun, Chonnam province.

C: Agricultural villages in Gksung-gun, Chonnam province and Namwon city, Chonbuk province.

A-B: Chi-Square test for age difference between A and B.

A-C: Chi-Square test for age difference between A and C.

2000
 , SPSS 10.0
 Chi-square test

3.

1.

6 1 40g 71.6%, 64.0%, 57.3% ,

20g 1 1 (75.5%) (61.6%) (58.6%) (Table 2).

6 30-49 가 (78.4%) (58.0%) (p<0.05)

1 2 , 20 (59.7%) 가 . 50-69 (71.2%) (66.0%)

가 (60.5%) 가 . 70 (65.7%)

가 (45.5%) (p<0.05)

가 (60.5%) 가 (Fig. 1).

40g 가

1 (65.2%) (34.0%)

25 (44.3%) (Table 3).

1 1 (p<0.01), 30-49 50-69 (p<0.05)(Fig. 2).

가 11.4%, 15.4%, 21.1% ,

	(21.8%)	(8.6%)	(17.6%)	(22.2%)	
			(p<0.05).	50-69	(13.9%)
	(Table 2).	(16.4%)		(22.4%)	
30-49		가	(p<0.05),	(14.6%)	(13.0%)
	(5.1%)		가 . 70		
			(15.2%)	(17.6%)	

Table 2. The proportion of alcohol drinking by sex

Unit: %

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	71.6	64.0	57.3
	Age adjusted (C.I.)	75.5 (64.7-86.3)	61.6 (51.9-71.3)	58.6 (49.8-67.3)
Female	Crude	11.4	15.4	21.1
	Age adjusted (C.I.)	8.6 (3.6-13.6)	16.4 (10.9-22.0)	21.8 (16.8-26.8)

^aFishing villages in Kohung-gun, Chonnam province.^bAgricultural villages in Kohung-gun, Chonnam province.^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

C.I.: Confidence Interval.

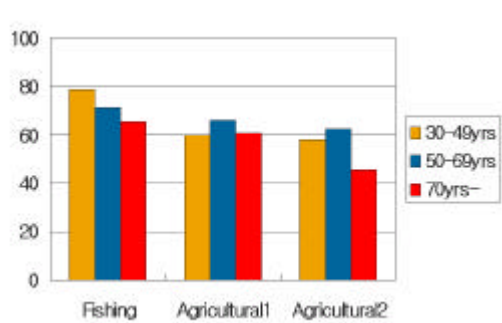
Table 3. The proportion of heavy alcohol drinking by sex

Unit: %

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	62.9	48.1	33.3
	Age adjusted (C.I.)	65.2 (53.1-77.3)	44.3 (34.4-54.2)	34.0 (25.6-42.3)
Female	Crude	5.4	5.7	5.2
	Age adjusted (C.I.)	4.2 (0.6-7.7)	6.3 (2.7-10.0)	4.7 (2.2-7.3)

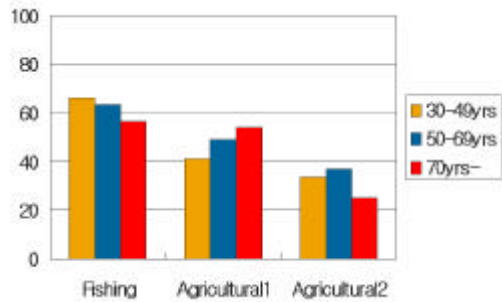
^aFishing villages in Kohung-gun, Chonnam province.^bAgricultural villages in Kohung-gun, Chonnam province.^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

C.I.: Confidence Interval.



Fishing: Fishing villages in Kchung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kchung-gun, Chonnam province
 Agricultural2: Agricultural villages in Gksung-gun, Chonnam province and Namwon city, Chonbuk province

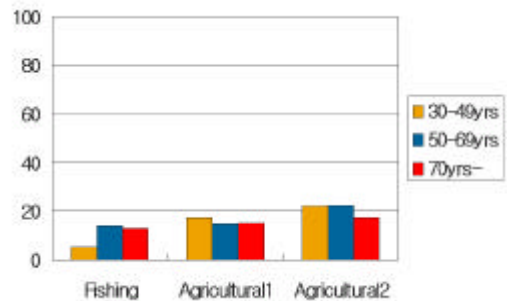
Fig. 1. The proportion of alcohol drinking in male



Fishing: Fishing villages in Kchung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kchung-gun, Chonnam province
 Agricultural2: Agricultural villages in Gksung-gun, Chonnam province and Namwon city, Chonbuk province

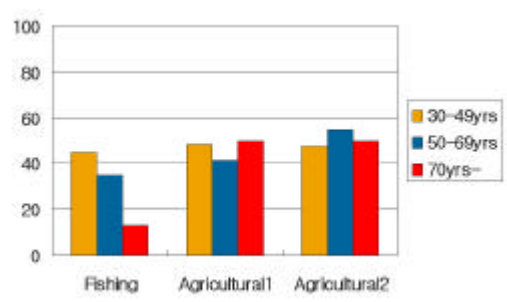
Fig. 2. The proportion of heavy alcohol drinking in male

가 (Fig. 2). 20g
 가 (Table 3),
 1
 33.3%, 43.9%,
 53.1%,
 (40.0%) (46.6%) (49.9%)



Fishing: Fishing villages in Kchung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kchung-gun, Chonnam province
 Agricultural2: Agricultural villages in Gksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 3. The proportion of alcohol drinking in female



Fishing: Fishing villages in Kchung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kchung-gun, Chonnam province
 Agricultural2: Agricultural villages in Gksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 4. The proportion of trial to quit alcohol during last one year in male drinker

(Table 4). 30
 -49 (44.8%)
 (48.6%) (47.5%) 가
 . 50-69 (34.8%)
 (55.2%)
 (p<0.01), (41.5%)
 가 (Fig. 4). 70
 (13.0%) (50.0%) (50.0%)
 (p<0.05).

1 (61.0%) (64.4%)
 18.8%, 16.4%, (56.5%) 7†
 32.0% (9.0%) (18.4%) (27.3%) (Table 5). (71.4%) (44.7%) (45.5%)
 (p<0.05)(Fig. 5).
 (Table 4). 1.0%,
 3.9%, 11.9% ,
 (0.6%)
 2. (6.8%) ,
 63.2%, (3.4%)
 64.4%, 54.1% , (Table 5). , 30-49

Table 4. The proportion of trial to quit alcohol during last one year in drinker

Unit: %

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	33.3	43.9	53.1
	Age adjusted (CI.)	40.0 (25.7-54.2)	46.6 (33.8-59.4)	49.9 (38.2-61.7)
Female	Crude	18.8	16.4	32.0
	Age adjusted (CI.)	9.0 (0-23.4)	18.4 (4.1-32.8)	27.3 (15.8-38.8)

^aFishing villages in Kohung-gun, Chonnam province.^bAgricultural villages in Kohung-gun, Chonnam province.^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

CI.; Confidence Interval.

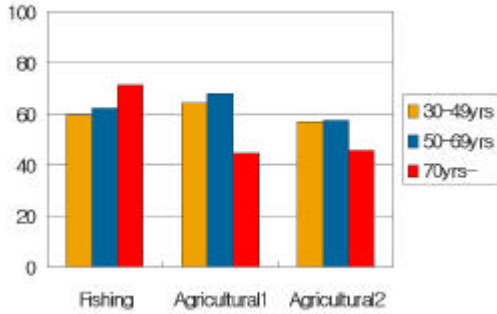
Table 5. The proportion of smoking by sex

Unit: %

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	63.2	64.4	54.1
	Age adjusted (CI.)	61.0 (48.5-73.4)	64.4 (54.9-73.9)	56.5 (47.7-65.2)
Female	Crude	1.0	3.9	11.9
	Age adjusted (CI.)	0.6 (0-1.9)	3.4 (0.7-6.0)	6.8 (4.0-9.7)

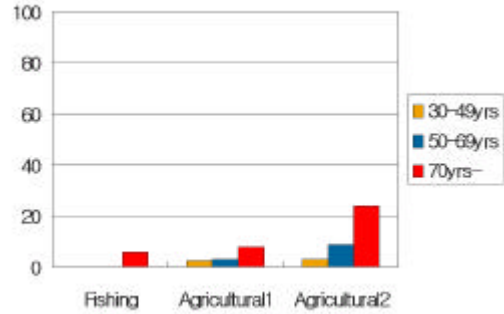
^aFishing villages in Kohung-gun, Chonnam province.^bAgricultural villages in Kohung-gun, Chonnam province.^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

CI.; Confidence Interval.



Fishing: Fishing villages in Kohung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kohung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 5. The proportion of smoking in male



Fishing: Fishing villages in Kohung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kohung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 6. The proportion of smoking in female

가 (2.8%, 3.0%) . 42.0%, 53.1%,
 50-69 가 67.4% , (48.1%) (45.3%) (60.0%)
 3.0%, (5.6%) (Table 6).
 8.5% . 70 (23.9%) , 30 -49
 (p<0.01), (7.7%) (52.4%) (39.5%)
 가 (Fig. 6). (53.8%) 가 . 50-69

Table 6. The trial of quitting smoking during last one year in smokers

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	42.0	53.1	67.4
	Age adjusted	48.1	45.3	60.0
	(CI.)	(31.9-64.4)	(33.0-57.6)	(48.4-71.6)
Female	Crude	33.3	41.2	65.3
	Age adjusted	-	43.1	27.8
	(CI.)	-	(2.9-83.2)	(17.6-37.9)

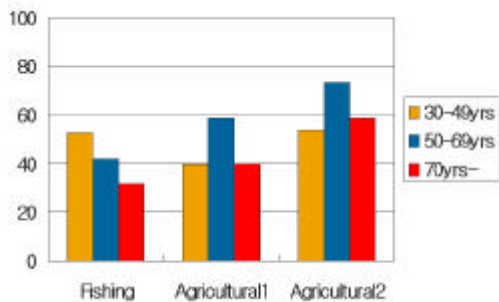
^aFishing villages in Kohung-gun, Chonnam province.

^bAgricultural villages in Kohung-gun, Chonnam province.

^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

CI.; Confidence Interval.

(73.5%)
 (42.1%) (58.9%) 65.3%
 (p<0.05). 70
 (31.8%) (58.9%)
 (40.0%)
 가 (Fig. 7).
 1
 33.3%, 41.2%,



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 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 7. The proportion of trial to quit smoking during last one year in male smoker

가 (Table 6).
 3.
 33.5%,
 46.9%, 40.4%, 가 (Table 7).
 , 50-69
 (33.3%) (48.3%) (44.7%)
 (p<0.05)(Fig. 8).
 24.0%,
 32.8%, 37.9% ,
 (24.7%) (36.1%) ‘
 (Table 7).
 , 30 -49
 가 . 50-69
 (26.7%) (39.7%) ‘
 ,
 (p<0.01), 70
 (13.2%)
 (36.0%) (p<0.01)(Fig. 9).

Table 7. The proportion of self reported high salt diet by sex

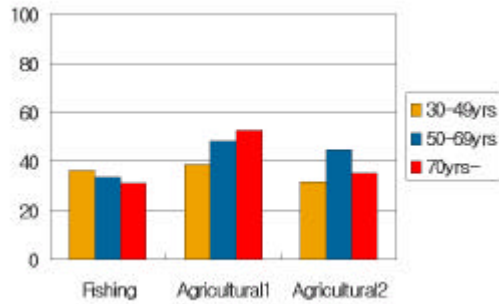
		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	33.5	46.9	40.4
	Age adjusted	35.0	42.4	35.9
	(CI.)	(22.8-47.1)	(32.6-52.2)	(27.6-44.3)
Female	Crude	24.0	32.8	37.9
	Age adjusted	24.7	32.5	36.1
	(CI.)	(16.9-32.5)	(25.5-39.5)	(30.3-41.9)

^aFishing villages in Kohung-gun, Chonnam province.

^bAgricultural villages in Kohung-gun, Chonnam province.

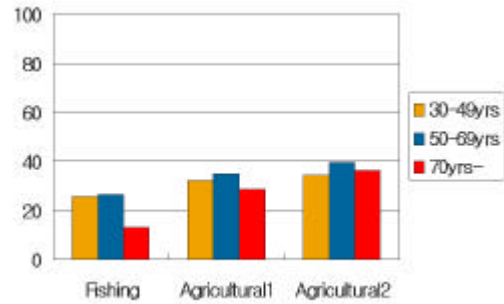
^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

CI.; Confidence Interval.



Fishing: Fishing villages in Kohung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kohung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 8. The proportion of self reported high salt diet in male



Fishing: Fishing villages in Kohung-gun, Chonnam province
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 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 9. The proportion of self reported high salt diet in female

Sex	Diet Type	Proportion (%)		
		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	36.0%	39.1%	45.1%
	Age adjusted	36.2%	41.5%	51.2%
	(C.I.)	(24.0-48.4)	(31.7-51.3)	(42.4-60.0)
Female	Crude	51.4%	44.3%	50.7%
	Age adjusted	50.7%	46.7%	54.4%
	(C.I.)	(41.7-59.8)	(39.3-54.2)	(48.4-60.4)

Table 8. The proportion of trial of low salt diet by sex

Unit: %

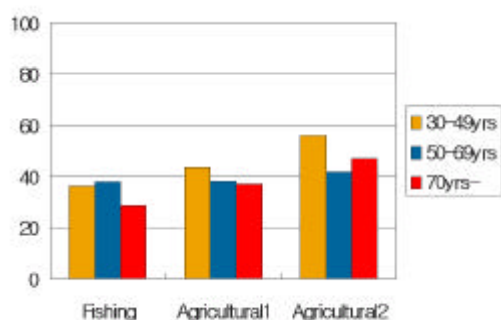
^aFishing villages in Kohung-gun, Chonnam province.

^bAgricultural villages in Kohung-gun, Chonnam province.

^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

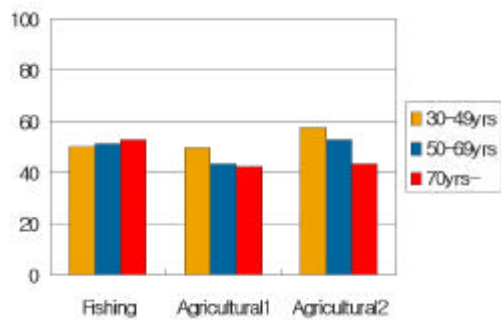
CI.; Confidence Interval.

(54.4%) (50.7%) (46.7%) (42.9%) (52.5%) 가
 가 (Table 8). . 70 (52.8%)
 , 30 -49 (42.2%) (43.0%)
 (50.0%) (49.5%) (Fig. 11).
 가 . 25 ()
) 21.7%,
 4. 18.0%, 20.8% ,
 50-69 (51.5%) (27.9%)



Fishing: Fishing villages in Kohung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kchung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 10. The proportion of trial of low salt diet in male



Fishing: Fishing villages in Kchung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kchung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 11. The proportion of trial of low salt diet in female

Table 9. The proportion of overweight

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	21.7	18.0	20.8
	Age adjusted (CI.)	27.9 (16.5-39.4)	25.0 (16.3-33.6)	32.0 (23.8-40.3)
	Crude	36.6	28.6	35.4
Female	Age adjusted (CI.)	38.9 (30.1-47.7)	35.6 (28.5-42.7)	41.8 (35.9-47.8)

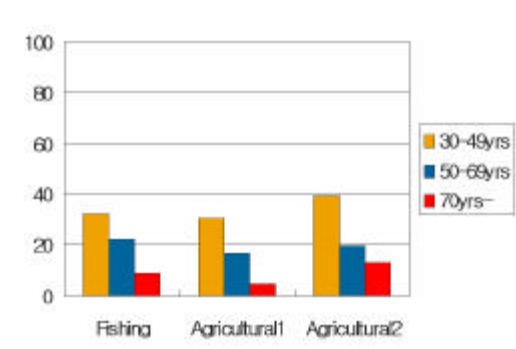
^aFishing villages in Kohung-gun, Chonnam province.

^bAgricultural villages in Kchung-gun, Chonnam province.

^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

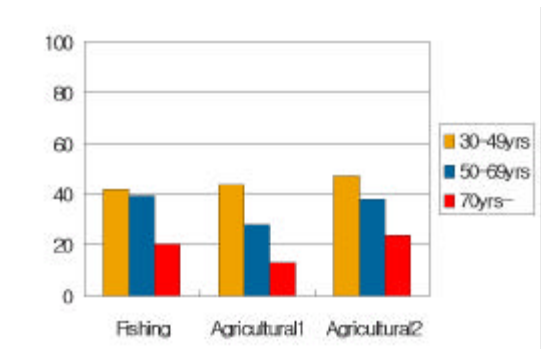
CI.; Confidence Interval.

(25.0%) (32.0%) (Table 9). (Table 9). (Fig. 13).
 가 (Table 9). (Fig. 12). , ,
 36.6%, 51.2%,
 28.6%, 35.4% , 50.9%, 55.9% ,
 (38.9%) (51.6%) (61.7%)
 (35.6%) (41.8%) 가 (58.4%)



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 Agricultural1: Agricultural villages in Kohung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 12. The proportion of overweight in male



Fishing: Fishing villages in Kohung-gun, Chonnam province
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 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

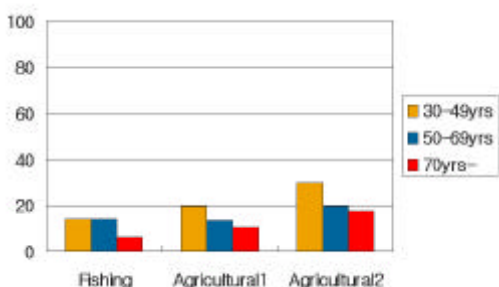
Fig. 13. The proportion of overweight in female

Table 10. The proportion of fatty body image in overweighted subjects

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	51.2	50.9	55.9
	Age adjusted (CI.)	51.6 (27.5-75.6)	61.7 (42.3-81.1)	58.4 (42.8-74.0)
	Crude	65.4	67.9	64.6
Female	Age adjusted (CI.)	71.8 (59.0-84.6)	74.5 (63.8-85.2)	75.0 (67.4-82.6)

^aFishing villages in Kohung-gun, Chonnam province.
^bAgricultural villages in Kohung-gun, Chonnam province.
^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.
 CI.; Confidence Interval.

(Table 10). 65.4%, 14.4%, 20.5%
 67.9%, 64.6%,
 (71.8%) (13.4%)
 (74.5%) (75.0%) (25.8%) (Table 11).
 가 (Table 10). 30
 1, 1 20 -49 가
 12.4%, (p=0.06)(Fig. 14).



Fishing: Fishing villages in Kohung-gun, Chonnam province
 Agricultural1: Agricultural villages in Kohung-gun, Chonnam province
 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 14. The proportion of regular exercise in male

4.1%, 4.3%,
 11.4% .
 (3.4%) (15.0%)
 (Table 11).
 30 -49 (2.5%)
 (3.7%) 가 ,
 (18.2%)
 (p<0.01). 50-69 (4.3%)
 (4.9%) 가
 , (10.6%)
 (p<0.05). 70
 (5.6%) (3.3%) (9.3%)
 가 (Fig. 15).

Table 11. The proportion of regular exercise

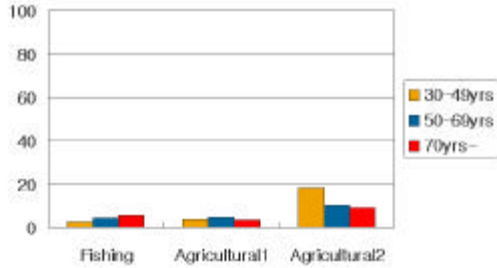
		Unit: %		
		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	12.4	14.4	20.5
	Age adjusted (CI.)	13.4 (4.7-22.0)	17.3 (9.7-24.9)	25.8 (18.0-33.6)
Female	Crude	4.1	4.3	11.4
	Age adjusted (CI.)	3.4 (0.1-6.6)	4.0 (1.1-6.9)	15.0 (10.5-19.4)

^aFishing villages in Kohung-gun, Chonnam province.

^bAgricultural villages in Kohung-gun, Chonnam province.

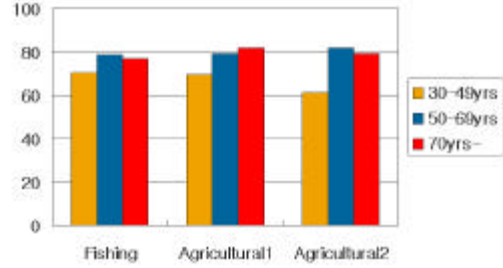
^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

CI.: Confidence Interval.



Fishing: Fishing villages in Kohung-gun, Chonnam province
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Fig. 15. The proportion of regular exercise in female



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 Agricultural2: Agricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province

Fig. 16. The proportion of blood pressure check during the past one year in male

5.

1
 77.0%, 77.5%,
 78.2% , 가
 (Table 12).

(Fig. 16).
 82.2%, 86.7%, 78.2% ,
 (Table 12).

(Fig. 17).

1983
 가 , 1989
 3 ,
 1989 1992
 가
 가 (,)

Table 12. The proportion of blood pressure check during the past one year

		Fishing ^a	Agricultural 1 ^b	Agricultural 2 ^c
Male	Crude	77.0	77.5	78.2
	Age adjusted	73.2	73.0	68.5
	(CI.)	(61.9-84.6)	(64.2-81.9)	(60.3-76.8)
Female	Crude	82.2	86.7	81.0
	Age adjusted	76.1	84.8	73.5
	(CI.)	(68.4-83.7)	(79.4-90.2)	(68.1-78.9)

^aFishing villages in Kohung-gun, Chonnam province.

^bAgricultural villages in Kohung-gun, Chonnam province.

^cAgricultural villages in Goksung-gun, Chonnam province and Namwon city, Chonbuk province.

CI.; Confidence Interval.

Unit: %

가 .

(ecological study)

가 ,

가

가

가 가 .

가

(27.9%)

(32.0%) 가

(2001) 가

(22.7%) (24.2%) 가

(38.9%) 가

(41.8%) 가

(40.0%) (40.1%) 가 .

1998 (, 1999)

2

2 가

(stage of change)

1

(73.2%, 76.1%)

가

(2000) (69.6%, 77.3%) (Prochaska , 1992).

가 , (target population) 가

40

가 가

가

4.

가

5.

6.

가

30-40

가

1998 11 1999 4
(2) 503 ,
(3) 775
2 , 2) 1,425

30-40

가

1.

, , , , , .
, , , . 가
, 1991; 12(11): 44-55

2.

1984; 9(4): 533-551

3.

1988; 25(3): 649-664

4.

2000; 33(1) 56-68

5.

, , 1990; 12(2):

184-190

6.

1988; 11(1): 13-39

30

1.

30-49

가

, 70

가

2.

가

70

, 50

3.

7. , , , , , , , . 2001; 26(2): 97-109

8. . 3: 1993; 26(4): 508-533

9. . , 1983; 16(1): 89-97

10. , . 1998 . 1999

11. . , , 1996

12. , , . , 1986; 8(1): 11-22

13. , , , , , . (1), 1999

14. , , , , , , . , 가 . 1992; 13(2): 117-124

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