A Community-based Survey and Screening for Depression in the Elderly: The Short-term Effect on Suicide Risk in Japan

Hirofumi Oyama[1)]*, Tomoe Sakashita[1)], Atsuko Chiba[1)], Kenya Ishida[1)], Hiroko Taneichi[1)], Yuki Tonuma[1)]

1) Aomori University of Health and Welfare

Key Words ① Suicide ② Depression ③ Elderly

Ⅰ. Aim and design

In this study we evaluate outcomes of a community-based program to prevent suicide among individuals aged 60 and over, using a quasi-experimental design with an intervention region (41,337 residents, 35.1% aged 60 and over) and a neighboring reference region.

Ⅱ. Methods

Our two-year intervention program included an anonymous survey by random sample in the entire intervention region and, in the second year, a depression screening with follow-up by a psychiatrist in the higher-risk districts.

Ⅲ. Results

Changes in the risk of completed suicide were estimated by the incidence-rate ratio (IRR). The risk for men in the intervention region was reduced by 61% (age-adjusted IRR = 0.39; 90% CI = 0.18 – 0.87), whereas there was a (statistically insignificant) 51% risk reduction for women in the intervention region, and no risk reduction for either men or women in the reference region (Table). The ratio of the crude IRR for elderly men in the intervention region to that for all elderly men in Japan was estimated at 0.42 (90% CI = 0.18 – 0.92), showing that the risk reduction was greater than the national change.

Ⅳ. Conclusion

The management of depression through a combination of an initial survey and subsequent screening holds clear promise for prompt effectiveness in the prevention of suicide for elderly men, and potentially for women.

Ⅵ. References

Oyama H, Sakashita T, et al.: A Community-Based Survey and Screening for Depression in the Elderly: The Short-Term Effect on Suicide Risk in Japan. Crisis 31(2): 100-108. 2010.

*連絡先：〒030-8505　青森市浜館間瀬 58-1　E-mail: h_oyama@auhw.ac.jp

Table. Suicide IR change: Before and after program implementation

		Stage				Breslow-Day test			Corrected Mantel-Haenszel test			Age-adjusted IRR*	
		Baseline		Implementation									
Participants	Age (years)	*n*	Person-years	*n*	Person-years	$\chi 2$	*df*	*p*-value	$\chi 2$	*df*	*p*-value	Estimate	90%CI
Men													
Intervention	60-69	7	5,285	2	5,022	0.48	2	0.79	3.17	1	0.07	0.39	0.18-0.87
region	70-79	5	4,775	3	4,912								
	80-	3	1,761	1	2,022								
Reference	60-69	7	5,525	6	5,272	0.23	2	0.89	0.03	1	0.87	0.99	0.52-1.89
region	70-79	5	4,400	5	4,576								
	80-	1	1,574	2	1,868								
Women													
Intervention	60-69	4	6,439	1	5,948	1.64	2	0.44	1.11	1	0.29	0.49	0.19-1.22
region	70-79	5	6,557	2	6,739								
	80-	1	4,021	2	4,513								
Reference	60-69	3	6,570	3	6,147	4.46	2	0.11	0.98	1	0.32	1.69	0.82-3.49
region	70-79	1	6,056	8	6,216								
	80-	4	3,508	3	3,984								

*Estimated by using the Mantel-Haenszel procedure.

Notes: IR = incidence rate; IRR = incidence rate ratio; CI = confidence interval