

Results

The owners or executive board usually were foreign investors or investors from Bangkok which seldom came to see their business. The working team at the workplace consists of the manager, supervisors, chief division whose only take in the arrangements or suggestions from the owners or the executive board. The approaches by letter gained a little act of responding, the concept or detail of the project usually delayed or hindered for a period of time, and in process of considerations by the owners or the committees. The negative responses were often be found because of lacking the direct communication with the real authorized person.

Most of the workers were daily employees, they usually work eight-hour or twelve-hour period. Some factories had two period of working, some had three period of working, and some had one period. In the day time, the workers one hour leaves for lunch. After finished their jobs, they rushed to go home immediately, for one period factories they were closed in the evening and did not permit anyone to be in the factories because of the reason of the securities. The group education were not compatible with the factories for the explanation of the restrained timing. For the night period factories they did not suit to our research team to visit the factories. The factories also have limited facilities for the group education; meeting room which separated from the working factories. The work managers had some reluctant to allow the workers to join the group education while the other personnel are working, they were afraid of the comparison between the workers. And if they allow a large number of the workers, they worried about the effectiveness of the work capacities.

The exhibition seemed to be satisfactory with the factories more than group education, we set up the two way exhibition boards which had the question box. The workers could write a letter to the investigator team for any question about AIDS/STDs or various matters of reproductive health. The workers had been made known that the answer would be replied within a week, and presented it on the exhibition board. However, the response from the workers were less than expectation, we received only a few letters. By our idea the two way communication would give more profits, and would be a another linkage between the investigators and the workers. The exhibition could arouse the worker in some levels, but the improvement might be managed for better two way communication.

The owners of the factories did not give any compensations to the workers who join the peer counselling, they just allowed the workers to enter the meeting. Most of the workers came together because it was their willings to take part. We did not prefer to give money for the incentive gain, it would be better to provide them in the appropriated form; the self-esteem of social assistants, the atmosphere of living together. In addition, the various educative media are the instruments that made them proud in their responsibilities to improve their friends about AIDS/STD prevention and risk reduction.

The small group skill training was the addible part to learn together with the investigators on how to use the various media. The evaluating of the media gave the things that resulted the peer counsellors to make clear with the misunderstanding, the acceptabilities, the attention of the recipients. Unfortunately, we conducted the small group skill training nearly the end of the project. If

the training started early, the effectiveness of the intervention would be improved in value more than this.

Of the 328 individuals contacted through December, 1990; 174 workers were the exhibition group and 154 were group education. They accepted the invitation to participate in an interview prior to the intervention program. Table 1 shows comparative sociodemographic data on these two group at baseline. There were statistical differences between both groups in some items.

Table 1. Comparative sociodemographic data

Variable	Exhibition group (N=174) number (%)	Group Education (N=154) number (%)	P value
Age (years)			
less than 15	4 (2.2)	2 (1.2)	NS
15-20	71 (40.8)	41 (26.6)	S
21-25	65 (37.3)	35 (22.7)	S
more than 25	33 (18.9)	75 (48.7)	S
Marital status			
single	143 (82.1)	75 (48.7)	S
couple	27 (15.5)	72 (46.7)	S
divorced	1 (0.5)	1 (0.5)	NS
widow	2 (1.1)	2 (1.2)	NS
not specify	1 (0.5)	4 (2.5)	NS
Religion			
Buddhist	133 (76.4)	144 (93.5)	S
Muslim	40 (22.9)	10 (6.4)	S
Christian	1 (0.5)	-	NS
Province born			
north	-	3 (1.9)	NS
north-east	5 (2.8)	26 (16.8)	S
middle	1 (0.5)	3 (1.9)	NS
south	168 (96.5)	118 (76.6)	S
Previous occupation			
agriculture	35 (20.1)	54 (35.0)	S
laborers	28 (16.0)	52 (33.7)	S
small trading	9 (5.1)	5 (3.2)	NS
house keepers	3 (1.7)	1 (0.6)	NS
students	28 (16.0)	5 (3.2)	S
other	3 (1.7)	9 (18.1)	NS
not specify	68 (39.0)	28 (18.1)	S

Variable	Exhibition group (N=174) number (%)	Group Education (N=154) number (%)	P value
Education level			
illiterate	-	-	NS
elementary school 1-4 years	15 (8.6)	56 (36.3)	S
elementary school 5-6 years	70 (40.2)	52 (33.7)	NS
secondary school 1-3 years	43 (24.7)	16 (10.3)	S
secondary school 4-6 years	18 (10.3)	7 (4.5)	S
certificate (vocational)	25 (14.3)	18 (11.6)	NS
bachelor degree	1 (0.5)	1 (0.5)	NS
not specify	2 (1.1)	4 (2.5)	NS
Duration of worker (months)			
1 - 6	9 (5.1)	22 (14.2)	S
7 - 12	28 (16.0)	16 (10.3)	NS
13 - 18	16 (9.1)	5 (3.2)	S
19 - 24	24 (13.7)	16 (10.3)	NS
more than 24	71 (40.8)	82 (53.2)	S
not specify	26 (14.9)	13 (8.4)	NS
Income (Bahts per day, 25 Bahts = 1 US\$)			
less than 51	2 (1.1)	3 (1.9)	NS
51 - 75	125 (71.8)	73 (47.4)	S
76 - 100	22 (12.6)	46 (29.8)	S
more than 100	7 (4.0)	3 (1.9)	NS
not specify	18 (10.3)	29 (18.8)	S
Domicile			
living with parent	72 (41.3)	62 (40.2)	NS
living with relatives	17 (9.7)	11 (7.1)	NS
living in factories	7 (4.0)	43 (27.9)	S
living alone	67 (38.5)	13 (8.4)	S
other	11 (6.3)	25 (16.2)	S
Parents' marital status			
living together	118 (57.8)	98 (63.5)	NS
new marriage	4 (2.2)	5 (3.2)	NS
divorced or separate	13 (7.4)	5 (3.2)	NS
father or mother was death	37 (21.2)	45 (29.2)	NS
not specify	2 (1.1)	1 (0.6)	NS

The behavior of the workers when they had the abnormal symptoms related to genital organ or reproductive system is reported in Table 2. Most of them consulted the doctors for their problems, and combined with other behaviors.

Table 2. Pre-intervention and post-intervention behavior among the worker when they had symptoms related to reproductive system

behavior	baseline (N=311) No. (%)	follow-up (N=235) No.(%)	P value
consult the doctor	288 (92.6)	216 (91.9)	NS
prescribe the drug by themselves	17 (5.4)	14 (10.2)	NS
consult the pharmacist or non-pharmacist at drug store	41 (13.1)	24 (10.2)	NS
consult their parents	45 (14.4)	22 (9.3)	NS
consult their friends	40 (12.8)	14 (5.9)	S
consult their old teachers	8 (2.5)	6 (2.5)	NS
wait and observe the progression	23 (7.3)	15 (6.3)	NS

The general knowledge about various STD in both groups is summarized in Table 3. There were statistical significant changes in every items among the exhibition group, and some items among the group education. However, the general knowledges of STD at baseline survey were rather low in both group; less than half of them understood the STD, except the group education more than half of them (63.8%) perceived directly to non-gonococcal urethritis.

Table 3. Pre-intervention and post-intervention general knowledge about STD among both groups

item	baseline No. (%)	follow-up No.(%)	P value
Exhibition group			
syphilis	19/162 (11.7)	27/130 (20.8)	S
gonorrhea	42/167 (25.1)	50/134 (37.3)	S
non-gonococcal urethritis	17/158 (10.7)	29/130 (22.3)	S
herpes genitalis	15/157 (9.5)	29/129 (22.5)	S
chancroid	16/158 (10.1)	30/128 (23.4)	S
condyloma accuminata	15/156 (9.6)	28/129 (21.7)	S
molluscum contagiosum	8/156 (5.1)	16/129 (12.4)	S
lymphogranuloma venereum	27/162 (16.7)	36/129 (27.9)	S
Group education			
syphilis	20/142 (14.1)	10/103 (9.7)	NS
gonorrhea	64/149 (43.0)	49/105 (46.7)	NS
non-gonococcal urethritis	30/47 (63.8)	23/104 (22.1)	S
herpes genitalis	13/141 (9.2)	18/104 (17.3)	S
chancroid	20/141 (14.2)	21/103 (20.4)	NS
condyloma accuminata	30/141 (21.3)	30/104 (28.8)	NS
molluscum contagiosum	4/142 (2.8)	6/77 (7.8)	S
lymphogranuloma venereum	56/145 (38.6)	36/104 (34.6)	NS

Note: exhibition group; baseline N=174, follow-up N=135
group education; baseline N= 154, follow-up N=106

The workers' awareness and concern about AIDS is reported in Table 4. Most of the workers were already aware and concern about AIDS in many items and in high proportion. After the intervention the awareness and concern had significant change ($p < 0.05$) among the exhibition group in two items; heard AIDS from mass media, and seeking information about AIDS. In contrast with the group education had significant change in one item; AIDS is a fatal condition. The different educative intervention had made different changes in awareness and concern.

Table 4. Pre-intervention and post-intervention awareness and concern change

item	baseline No. (%)	follow-up No.(%)	P value
exhibition group			
heard AIDS from mass media	106/168 (63.1)	113/129 (87.5)	S
AIDS can be communicable	153/165 (92.7)	121/129 (93.1)	NS
AIDS is a fatal condition	141/167 (84.4)	114/129 (88.4)	NS
seeking information about AIDS	74/165 (44.8)	82/125 (65.6)	S
group education			
heard AIDS from mass media	110/152 (72.4)	79/104 (76.0)	NS
AIDS can be communicable	135/151 (89.4)	92/103 (89.3)	NS
AIDS is a fatal condition	108/149 (72.5)	88/104 (84.6)	S
seeking information about AIDS	83/150 (55.3)	55/103 (53.4)	NS

Note: exhibition group; baseline N=174, follow-up N=135
 group education; baseline N= 154, follow-up N=106

The knowledge about biomedical fact were summarized in Table 5. The most of the workers were already aware and concern about AIDS in many items and in high proportion. After the intervention the awareness and concern had significant change ($p < 0.05$) among the exhibition group in three items; AIDS is immunodeficient condition, infected person can not be identified by general appearance, and most infected person may have no symptoms and sign of AIDS. However, the group education only had significant change in increasing the knowledge about transmission by oral sex. The different educative interventions also had made different changes in knowledge about biomedical fact. Many items had no significant changes in both groups, it expressed indirectly that the changes depend were based on other interventions.

Table 5. Pre-intervention and post-intervention knowledge about biomedical fact

item	baseline No. (%)	follow-up No.(%)	P value
exhibition group			
AIDS is immunodeficient condition	130/165 (78.8)	117/128 (91.4)	S
infected person can not be identified by general appearance	99/162 (61.1)	98/127 (77.2)	S
most infected person may have no symptoms and sign of AIDS	45/161 (28.0)	53/126 (42.1)	S
heterosexual transmission by vaginal intercourse	157/159 (98.7)	124/131 (94.7)	NS
transmission by oral sex	57/163 (35.0)	50/127 (39.4)	NS
transmission by anal sex	107/164 (65.2)	85/128 (66.4)	NS
use of contaminated needle in drug abuse	70/163 (42.9)	50/128 (39.1)	NS
vertical transmission from infected mother to her baby	148/164 (90.2)	121/131 (92.4)	NS
group education			
AIDS is immunodeficient condition	114/149 (76.5)	86/103 (83.5)	NS
infected person can not be identified by general appearance	85/151 (56.3)	66/103 (64.1)	NS
most infected person may have no symptoms and sign of AIDS	45/152 (29.5)	43/104 (41.3)	NS
heterosexual transmission by vaginal intercourse	143/149 (96.0)	98/106 (92.5)	NS
transmission by oral sex	84/148 (56.8)	40/101 (39.6)	S
transmission by anal sex	91/147 (61.9)	57/101 (56.4)	NS
use of contaminated needle in drug abuse	46/147 (31.3)	31/103 (30.1)	NS
vertical transmission from infected mother to her baby	132/149 (88.6)	98/105 (93.3)	NS

Note: exhibition group; baseline N=174, follow-up N=135
group education; baseline N= 154, follow-up N=106

The false attitudes were summarized in Table 6. The group education had significant changed in true-false attitudes of four items; get AIDS from mosquitoes, social contact through food preparation and eating utensils, can get AIDS by using the toilet, and contact through the air such as cough or sneeze. The group education gave more advantage than exhibition group.

Table 6. Pre-intervention and post-intervention true-false attitude change

item	baseline No. (%)	follow-up No.(%)	P value
exhibition group			
get AIDS from mosquitoes	77/163 (47.2)	41/127 (32.3)	S
social contact through food preparation and eating utensils	29/164 (17.6)	13/128 (10.1)	NS
can get AIDS by using the toilet	39/165 (23.6)	15/128 (11.7)	S
contact through the air such as cough or sneeze	20/165 (12.1)	16/128 (12.5)	NS
casual contact such as hugging or grasping hand	6/166 (3.6)	4/129 (3.1)	NS
contact through secretion to unopened skin	80/162 (49.4)	64/127 (50.4)	NS
group education			
get AIDS from mosquitoes	75/147 (51.0)	27/103 (26.2)	S
social contact through food preparation and eating utensils	32/146 (21.9)	8/100 (8.0)	S
can get AIDS by using the toilet	29/147 (19.7)	11/101 (10.8)	S
contact through the air such as cough or sneeze	19/143 (13.2)	6/101 (5.9)	S
casual contact such as hugging or grasping hand	8/142 (5.6)	5/102 (4.9)	NS
contact through secretion to unopened skin	48/147 (32.7)	41/101 (40.6)	NS

Note: exhibition group; baseline N=174, follow-up N=135
group education; baseline N= 154, follow-up N=106

As seen in Table 7, the exhibition group and group education had no significant changes, except the select only the prostitutes who had had routine check up for STD and AIDS. It disposed and gave the tendency that the preventive behavior change were the series of willingness and actions, which were influenced by many things that had an effect.

Table 7. Pre-intervention and post-intervention preventive behavior change about AIDS

item	baseline No. (%)	follow-up No.(%)	P value
exhibition group			
willing to avoid sharing needle	158/165 (95.8)	127/132 (96.2)	NS
willing to use condom in every sexual intercourse	163/166 (98.2)	132/132 (100)	NS
willing to avoid sexual contact with the prostitutes	73/160 (45.6)	66/129 (51.2)	NS
select only semi-professional prostitutes	13/158 (8.2)	10/128 (7.8)	NS
select only high-class prostitutes	5/161 (3.1)	10/128 (7.8)	NS
select only the prostitutes who had routine check up for STD & AIDS	36/160 (22.5)	46/127 (36.2)	S
group education			
willing to avoid sharing needle	136/150 (90.7)	94/105 (89.5)	NS
willing to use condom in every sexual intercourse	134/151 (88.7)	100/106 (94.3)	NS
willing to avoid sexual contact with the prostitutes	61/149 (40.9)	39/104 (37.5)	NS
select only semi-professional prostitutes	22/147 (14.9)	18/103 (17.5)	NS
select only high-class prostitutes	19/147 (12.9)	14/103 (13.6)	NS
select only the prostitutes who had routine check up for STD & AIDS	44/149 (29.5)	35/100 (35.0)	NS

Note: exhibition group; baseline N=174, follow-up N=135
group education; baseline N= 154, follow-up N=106

Table 8 showed the possible responses of the worker in the assumable condition that if they have got AIDS. The worker had significant change in willing to take care themselves and avoid to spread the disease. However, the reversed direction had significant change in consultation the doctor or health officer for the specific service, that expressed indirectly that the trust and credit of the health service among the workers were less degree.

Table 8. Pre-intervention and post-intervention possible responses in the as sumable condition that if they have got AIDS

behavior	baseline (N=323) No. (%)	follow-up (N=233) No.(%)	P value
suicide	12 (3.7)	9 (3.9)	NS
consult the specific service; doctor or health officer	276 (85.4)	171 (73.4)	S
consult their friends	-	-	NS
do nothing, make life easy	7 (2.2)	11 (4.7)	NS
take care themselves, and avoid to spread the diseases	28 (8.7)	42 (18.0)	S

Table 9 showed the possible responses of the worker in the assumable condition that if their friends have got AIDS. There was a significant change in decreasing discrimination the AIDS victims to specific hospital.

Table 9. Pre-intervention and post-intervention possible responses in the assumable condition that if their friends have got AIDS

behavior	baseline (N=323) No. (%)	follow-up (N=233) No.(%)	P value
send them to specific hospital	159/322 (49.4)	92/231 (39.8)	S
send them to AIDS community	10/322 (3.1)	13/232 (5.6)	NS
let them live together and under preventive supervision	111/322 (34.5)	88/231 (38.1)	NS
let them live together and willing to give the advice	34/322 (10.6)	35/230 (15.2)	NS
ignore because of fear	3/322 (0.9)	1/233 (0.4)	NS

Overall, the exhibition group and group education had some significant change in the level of health behavior change continuum: The exhibition group had some significant change more than group education in awareness and concern, and knowledge. However, the group education had some significant change more than the exhibition group in the true-false attitudes.

The pre-intervention and post-intervention evaluations had many different among many items of the levels of health behavior change continuum between both exhibition group and group education. However, the tendencies indicated that the exhibition group was slightly significant outcome in some items and some levels of health behavior change continuum more than the group education.