

STUDY ON HEALTH AND BEHAVIOURAL PROBLEMS OF ADOLESCENTS - A SCHOOL BASED INTERVENTION PROGRAM

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INTRODUCTION

The process of urbanisation in Malaysia has led to more mothers joining the working force as there are more jobs available (1). Studies show that increase in women's participation in the work force correlates with increase in divorce rates (2). The breaking up of immediate family as well as the dwindling of extended family structure (3), leading to a more nucleated family are responsible to a significant extent for the present high magnitude of neglected adolescents (2). Adolescent boys and girls grow and develop without adequate love and guidance that they desperately require (4). Dysfunctions within the family and academic pressure from school-life are among the push factors for adolescent negative behaviour (5). At the same time, adolescents boys and girls are lured toward negative behaviour by environmental factors [pull factors] (6) such as the mass media and peer pressure , which resulted in an increase of juvenile delinquency, "bohsia" practices, out of wedlock pregnancy, prostitution, induced abortion, smoking, drug addiction and other negative activities (6). About 10 - 20% of adolescents experience psychosocial problems. They also lack adequate religious upbringing and "living skills" required to deal with problems of everyday life (4). There are a variety of programmes (7) which have been formulated to counter these problems but their focus has been symptomatic in nature and are not grassroot oriented nor cost effective. We believe that preventive (7) programmes (8,9) would be more suitable and effective for combating these issues. This project has been developed to identify adolescents with health and behavioural problems or are at high risk of such problems and to carry out comprehensive school-based prevention strategies starting from as early age as possible.

OVERALL OBJECTIVES OF THE PROJECT

- i. To compare the health and behavioural profile of the adolescent attending religious schools with those from national schools.
- ii. To identify the push and pull factors influencing the adolescent, family and community that are related to the health and psychosocial development of high risk adolescents compared to low risk adolescents.
- ii. To develop strategies which include health promotion in intensifying positive family interaction and psychosocial development of high risk adolescents.

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- iv. To implement the intervention strategies on the identified high risk adolescents and evaluate their effectiveness in improving the health status and promoting positive behaviours among them.

METHOD OF INTERVENTIONS

The overall goal of the study is to identify adolescents who are at high risk for developing health problems and negative behaviours. We also want to identify the factors associated with them and thus develop on appropriate intervention strategy.

The district of Gombak in Selangor was selected as it was rated second only to Petaling Jaya as regards to the number of adolescents with negative behaviour (ref 13). Nearby schools in Wilayah Persekutuan were also selected for the same reasons. Three (3) secondary schools from Gombak and 6 secondary schools from Wilayah Persekutuan were selected for the study. The schools were selected because of convenience purposes and cooperation given by the schools staff. Among them, 4 schools were selected as 'cases' and 5 schools as 'controls'.

The design of the study is quasi experimental with a pre and post test design for cases and controls. A total of 1592 Malay Muslim Form 2 adolescents from the 9 schools were universally sampled. From this number, 1470 responded to the self administered survey that was done simultaneously throughout the 9 schools as a baseline survey.

From the 4 'case' schools high risk students are identified using several criteria. They are as follows:

1. Marital status of the parents
2. Number of children in the family
3. Student staying with other than biological parents or hostel.
4. Disciplinary problem in school
5. Reading pornographic material
6. Watching pornographic video
7. Social problems of adolescents
8. Interaction of parents with children
9. Status of Koran reading
10. Practice of Ramadan fasting
11. Practice of 5 times daily prayers

Students with 6 or more criteria were categorised as high risk adolescents. In this way, 120 students were selected as cases.

These adolescents were then exposed to interventions with the purpose of increasing their understanding as regards to their role within the family, within schools and the community and helping them to develop their potentials in academic as well as behavioural aspects. The different interventions are as follows:-

1. Specific interventions for adolescents in the form of 'Seminar Kesehatan dan Perilaku Remaja' - 16 hours contact.
2. Specific interventions for adolescent's parents - 8 hours contact.

3. General interventions for adolescents in the form of 5 minutes weekly khutbah (sermon) at school assembly - 2 hours contact.
4. Intervention as Kem Ibadat (Worship Camp) at Templers Park - 40 hours contact.
5. Intervention in the form of follow up at a 'Social Clinic' - 8 hours contact.

Seminar on adolescents health

This was a two day seminar held at the Medical Faculty, UKM, Jalan Raja Muda on 18th and 19th October 1997. The adolescents were ferried to the venue in specially chartered buses. The students were exposed to many modules such as 'understanding self, purpose of life, effective communication with parents and teachers and adolescents responsibilities to themselves, to their families and the communities'. A total of 120 students attended together with their teachers. A 77 page report of the seminar is a by product of the seminar.

Seminar on parenting skill

This was a 1-day seminar of 8 contact hours with the parents of the intervened adolescent. Only 10 out of 240 parents invited for the programme, attended. The seminar discussed the responsibilities of parents towards their children, effective communication of parents with their children and technique of parenting. A 23 page report of the seminar was produced.

Weekly 5 min khutbah in school assembly

All Form 2 students in the 4 case schools selected were invited to a writing competition of 100 -150 words on topics that are related to adolescents, their parents and their responsibilities. The best 6 papers submitted from each of the 4 schools (6X4=24 articles) were given prizes. The panel of judges comprised of school teachers at their respective schools. The 24 articles were delivered during a 5 minute presentation in their schools assembly for 24 weeks which is equivalent to 5 min X 24 times = 120 mins or 2 hours exposure for all the students of the 4 schools participating. The response was good in general and we have come out with a 50 page report on it.

Religious intervention in "Kem Ibadat"

This was done for 2 days & 2 nights (40 hours contact) on 29th -31st May 1998 where the same 120 adolescents along with researchers, teachers and facilitators gathered at the Kem Temasya Rimba Templer at Jalan Ipoh. The activities included a workshop on specific topics of Islam, motivational talks, congregational prayers, physical exercises, night treks and dialogues. The response was very positive. A report of 73 pages has been produced.

Follow up intervention at the social clinic

Facilitators or ‘councillors’ were 2nd year medical students who volunteered for the task at clinical sessions. Once a month for 4 months (8 hours contact), the facilitators went in groups to the 4 case schools to see the 120 students in ‘clinics’ on group (10 - 20) basis. For certain students who needed it, individual counselling was also given. In this way, adolescents who have problems could talk out their problems and develop skills in dealing with their problems. At the end of the 4 visit, counselling services were handed back to the respective schools for further follow up of cases. There were also periodic meetings between school councillors, researchers and facilitators to discuss the problems of these 120 students. A majority of student problems are solvable. However, some students trivialised their problems whilst those with serious ones will be followed up by their respective schools.

RESULTS

We have utilised several indicators to measure the effectiveness of our 74 hours of intervention. These include parent-adolescent interaction, psychosocial adolescent problems and religiosity level of the adolescents.

Parents -adolescent interaction and intervention

Table 1 : Status of interaction between adolescent and parents at pre and post intervention phases

Quality intervention	CASES (36)		CONTROL (174)	
	Pre	Post	Pre intervention	Post intervention
Good	17	12	123	67
Not good	19	23	47	107
	36	36	170 *	174

* This discrepancy is due to non response in the Pre intervention phase.

Table 1 shows that the number of cases with good interaction decreased from 17 to 12 after intervention, whilst those with poor interaction increased from 19 to 23 after intervention. However, more marked changes in the numbers was seen among the controls whereby the decrease in the number of controls with good interaction was from 123 to 67, whilst the increase in those with poor interaction was from 47 to 107.

Table 2 : Mc Nemar's Test on Quality of Parents - Adolescent interaction among adolescents in selected school in Kuala Lumpur

Pre test	Post Test		P
	Good	Not good	
Good	9	7	0.180
Not good	2	15	

Cases (N = 33)

Pre test	Post Test		P
	Good	Not good	
Good	58	64	$\chi^2 = 46.414$
Not good	6	41	

Control (N = 170)

Table 1 shows that in both cases and control, quality of parent adolescent interaction become worse off. However, the deterioration is worse among the control groups.

On further analysis using McNemars Test (refer to table 2), it was found that the deterioration of parent adolescent interaction is not significant among the cases (P > 0.05) whereas among the control group, the deterioration is significant (P < 0.05).

Therefore we can conclude that firstly, in spite of intervention or no intervention there is a deteriorating effect of parent adolescent interaction. But this effect is worse off among those who receive no intervention. Hence intervention has helped to slow down the deterioration of parent adolescent interaction quality after 1 year lapse.

Table 3: Status of adolescents psychosocial problems at pre and post test

Adolescents problems	Cases			Controls		
	Pre Interventions	Post Interventions	Changes	Pre	Post	Change
Yes	23	18	5↓	50	65	15↑
No	13	17	4↑	122	143	21↑

Table 4 : Mc Nemars Test on the psychosocial problem of adolescent in selected school

Pre test	Post Test		P
	Yes	No	
Yes	14	7	0.344
No	3	9	

Cases (N = 33)

Pre test	Post Test		P
	Yes	No	
Yes	27	23	0.214
No	19	101	

Control (N = 170)

Adolescent psychosocial problems and Intervention

Referring to table 3, out of 23 adolescents who have psychosocial problems at the beginning, at post intervention the number decreased to 18. At the same time, the number of adolescents who have no psychosocial problem increased from 13 in the beginning of the study to 17 after the intervention. Therefore, intervention was found to have had a positive effect so far.

Looking at controls however, the number of adolescents with psychosocial problems increased from 50 at the beginning and increased to 65 post intervention.. Those with no psychosocial problems increased from 122 at pre test to 143 at post test.

The McNemars test (refer to table 4) shows that the change among the cases ever though positive is not significant statistically. In the controls too, where the finding is mixed (contradictory) it is also not significant.

We can conclude that there are some positive indications but the sample is too small to make it significant.

Table 5: Religiosity score of the adolescents (cases) in selected school

Analysis variable : Indeks Agama, Group (Pre Test - Cases)

n	Min	Max	Mean	S.D
36	7.0	39.0	24.67	7.14

Analysis Variable : Indeks Agama, Group (Post Test - Cases)

n	Min	Max	Mean	S.D
36	14.0	45.0	28.97	7.46

	Paired Differences					T	Df	Sig (2-tailed)
	Mean	Std. Dev.	Std. Error mean	95% confidence Interval of the Different				
				Lower	Upper			
Pair Indeks Agama; Pre Indeks agama; Post	-4.57	10.22	1.73	-8.08	-1.06	-2.647	34	0.012

Table 6 : Religiosity score of the adolescents (control) in selected school

Analysis variable : Indeks Agama, Group (Pre Test - Control)

n	Min	Max	Mean	S.D
172	6.0	43.0	25.06	6.38

Analysis Variable : Indeks Agama, Group (Post Test - Control)

n	Min	Max	Mean	S.D
175	11.0	48.0	26.59	6.07

	Paired Differences					T	Df	Sig (2-tailed)
	Mean	Std. Dev.	Std. Error mean	95% confidence Interval of the Different				
				Lower	Upper			
Pair IND_AGPRE IND_AGPOS T	-1.48	8.33	0.63	-2.74	-0.23	-2.335	171	0.021

Adolescent religiosity and intervention

Referring to table 5, the findings are that among the cases at pre test, the religiosity score was 24.67 ± 7 and this improved to 28.9 ± 7.46 at Post Test after intervention. Further, on paired T Test analysis, this difference was significant $P < 0.05$.

Referring to table 6, among the control adolescents, the Pre Test religiosity score was 25.0 ± 6 and at Post Test it goes up to 26.5 ± 6 . On further analysis using paired t test, again the difference was significant at $P = 0.021$. Therefore we cannot conclude that intervention had been effective in increasing the religiosity score. What we can say is that the increase in mean is more among the cases (4.57) compared to controls (1.48). Again a bigger sample is needed to confirm this findings.

SUMMARY

The intervention programmes implemented have to some extent slowed down the deterioration of parent- adolescents interaction. It also demonstrated some positive effects on psychosocial problems and religiosity score. At least the interventions have increased awareness among the adolescents. We are not able to compare our results because no such studies have been done in Malaysia. In conclusion, a bigger size sample is needed to study the intervention effects.

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