青少年偏差行為與心理不良
適應之探討—以台灣地區為例
Explaining Delinquency and Psychological
Distress: An Empirical Study in Taiwan

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Key Words：Social Control、Strain、Social Support、Delinquency、Psychological Distress.

Abstract

The current study has been driven by the following challenge: Can we develop and test a theoretical model that accounts for psychological distress and anti-social behaviors? To answer this question, I integrated the criminological theories on delinquency into the stress-distress model. This effort allowed me to simultaneously explain adolescent behaviors and mental health. The second element of my answer involved data from a sample of 303 male and 119 female adolescents in Taiwan. These data included a rich

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body of information and presented a significant comparative base for research on adolescent behavior problems and psychological distress.

Findings of the study generally support the direct effects of major social factors on outcomes in the integrated model. Interpersonal conflicts increase levels of depression; whereas social support is negatively associated with depression. The strength of attachment relationships and social support reduce the probability of involvement in delinquency, and interpersonal strain and negative life events have positive impacts on delinquent acts. Finally, the theoretical implications of the integrated model are discussed.

Introduction

The concern in the present study is to consider the etiology of adolescent behavior and health problems and to propose a integrated theoretical formulation as a guide to research and understanding. The focus is on features of social contexts and social process, which both generate and maintain adolescent psychological and delinquent patterns of behavior. Thus the present study examines an explanatory model that expands and synthesizes, social control theory, general strain theory, social support, and life event perspectives into a single paradigm that accounts for depressive symptoms and delinquent behaviors. The present study attempts to advance our understanding and explanation of adolescent health and behavior in three ways: (1) integrating multiple theories; (2) observing different outcomes; (3) examining the generalizability of a synthesized model based on the Western studies in Taiwan.

Integrating Theories

The synthesis of social bond theory, general strain theory, negative life events, and social support into a single paradigm has several advantages over a conceptualization which treats each theory or perspective as separate and independent. First, the provision for multiple etiological paths to adolescent behavior and health problems provides a more comprehensive view. The present study suggests that different patterns of adolescent well-being and deviance may be due to alternative etiological paths.

Second, I believe that the integrated paradigm is consistent with previous theoretical assumptions and offers some insight into the initial theories. Previous research using the stress-distress model has established relationships among stress, social support, and psychological distress. Studies of adolescent stress have attempted to explain why some adolescents are more depressed. The integrated model not only

provides the impact of stress and social resource on different outcomes but also allows us to observe the sequence between different stressors and significant social relationships that may influence adolescents' support from their networks. For example, some researchers (Brown and Harris, 1978; Pearlin, 1989) have suggested that that stressful events can be triggered by persisting problems and/or strains can exacerbate the effect of negative life events. In addition, Ptacek (1996) argues that individuals with strong bonds are prone to believe that they are worthy of help. These feelings then become the basis of subsequent support perceptions.
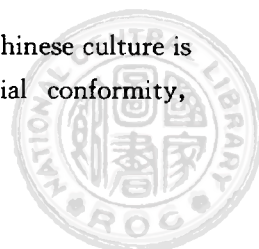
An Examination of Multiple Outcomes

Researchers generally examine the effects of stress, and social support on a specific outcome (e.g., Sandler, 1982; Gore et al., 1992; Will et al., 1992; Barrera et al., 1992; Gore and Aseltine, 1995). However, I believe that the effects of social bonds, stress, and social support are not limited to any particular outcome. The etiologic estimates for a particular outcome are biased estimates of the overall impact of social structure and factors.

Studies have shown that female deviance is characterized by an internalization of distress, whereas male deviance is more externalized (Horwitz and White, 1987; Colten et al., 1991). Horwitz and White (1987) argue that gender roles lead to different styles of pathology, but there may be other better ways to explain gender differences in distress. For example, Hirschi's social bond theory and Agnew's general strain theory can explain adolescents' antisocial behavior successfully. There is strong empirical evidence that the effects of stress and social support on delinquency are significant. The causes of adolescent health and behavior problems, however, are multiple in nature. So it is necessary to combine different theories to capture the entire range of relevant causal variables to increase the power of explanation.

An Empirical Test in an Oriental Society

The validity and reliability of a model depends on its generalizability across societies with different social environments and cultures. Although the basic theories and some hypotheses are based on the Western studies, it is significant to examine the proposed model in an oriental society. The present study represents a preliminary test for the synthesized model in Taiwan.
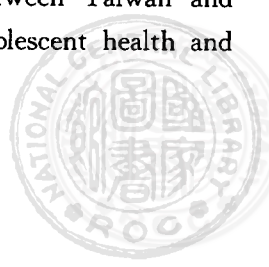
Taiwan may differ from the United States in several ways. First, Chinese culture is based on Confucian value system that highlight the value on social conformity,

harmonious interpersonal relationships in family, peer group, and school. For example, using a survey report of living condition of youths aged between 12 and 20 in Taiwan (1982), the Department of Social Affairs, Taiwan Provincial Government, finds that about 97 percent of the Chinese youths respond that if their individual benefits conflict with group benefits, they believe they will give the priority to the group. Americans value independence and self-direction over social conformity.

Education is strongly emphasized in Taiwan, Republic of China (Taiwan hereafter), just as it has always been throughout Chinese history. Currently, the Taiwan educational system offers nine years of compulsory education, 6 years for primary school and 3 years for junior high school. In the 1994-1995 academic year, more than 99 percent of school-age children were in school. After junior high school, students may enter one of three types of educational institutions, senior high school, senior vocational school, or five-year junior college. Entrance into all of these institutions is by competitive examination. The college and university level comes next. All college and university education is entered through either national wide or regional joint examinations. Thus after 13 years old, students in Taiwan must face a competitive examination every three years if they want to join any higher level education. Therefore, the biggest problem in families is the high expectation parents have for their children, and adolescent biggest personal problems are related to their schools and entrance examinations. Apparently, adolescents in Taiwan receive a lot of pressure from their families and schools.

Moreover, youths in Taiwan are encouraged to show their respect through obedience to people in high social position, such as parents and teachers. Students are expected to listen to their parents or teachers and not to argue with them. When youths have different arguments from their parents or teachers, most of them will accept their parents'/teachers' opinions or will avoid speaking out in front of parents or teachers. Compared to youths in Taiwan, American parents and teachers might be more likely to encourage their children/students to express their own opinions and make their own decisions. Thus adolescents in American might be more autonomous than adolescents in Taiwan but they may have more relationship conflicts than adolescents in Taiwan. Wang (1987) compares adolescent relationships with parents and teachers and finds that American youths appear to more quarrels or bad arguments with their parents. The differences in adolescent relationships with significant others between Taiwan and American may influence the impact of major social factors on adolescent health and behaviors.

According to the previous studies in America and Taiwan, depressive symptoms and delinquent behaviors are significant outcomes of adolescent stress and social relationships. It is hypothesized that the general relationships among, attachment relationships, stress, social support, and adolescent health and behavior problems will hold although there are distinctive cultural and social systems in Taiwan.

The Proposed Model and Hypotheses

Figure 1 shows the proposed conceptual model of the current study. According to Hirschi's social bond theory, the more individuals attach to their parents, peers, and school, the less they will be involved in distress. These relationships are represented by paths p1 and p2 in Figure 1. Moreover, empirical findings suggest that the strength of social bonds promote a sense of support from significant others and decrease the occurrence of undesirable events (Boyce, 1985). Hence, social bonds have a negative effect on negative life events and the effect of social bonds will be reduced when negative life events are introduced. Adolescents who have stronger attachment relationships are likely to have larger networks, receive/perceive more social support from significant others and experience fewer negative life events than others. The direct effects of social bonds on social support and undesirable life events are examined by paths p3 and p4, respectively. Since Hirschi's social bonds and Agnew's strains express practically opposite social relationships, I believe that there is a negative correlation between social bonds and strains shown by path p5.

H11. Attachment to parents, friends, and school is positively correlated to each other.

H12. There is a negative relationship between social bonds and strain.

H13. Social bonds will have a direct and negative effect on negative life events.

H14. Social bonds will have a direct and positive effect on social support.

H15. Social bonds will have negative effects on depression and delinquency.

H16. Social bonds will have indirect and negative effects on depression and delinquency intervened by strain.

H17. Social bonds will have indirect and negative effects on depression and delinquency intervened by negative life events.

H18. Social bonds will have indirect and negative effects on depression and delinquency intervened by social support.
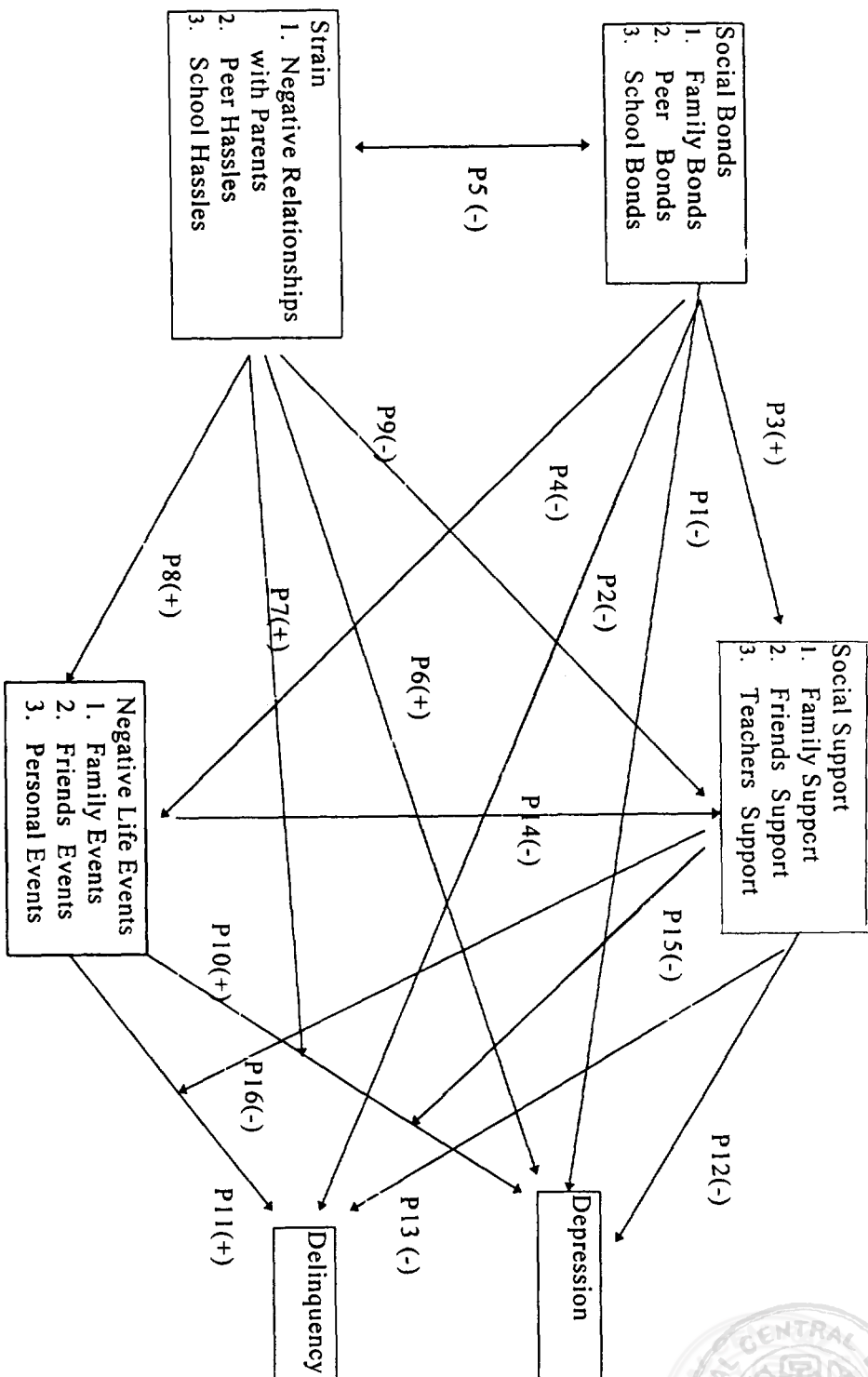
Figure 1 The Proposed Model of Adolescent Delinquency and Psychological Distress

The second set of social factors stems from Agnew's general strain theory. Agnew (1992) argues that both a discrepancy between aspirations and expectations and persisting relationship strain with significant others (such as negative relationships with adults and school/peer hassles) can directly influence adolescents' depression and delinquency. Unfortunately, the measure of classical strain is not available in the data set for the current study, so it is not included in the proposed model. Paths p6 and p7 attempt to test the direct effects of strain on depression and delinquency. In addition, strain can also trigger the occurrence of undesirable life events (Pearlin, 1989), so the path p8 shows the direct and positive effect of strain on negative life events. I also propose that strain reduces individuals' supportive feelings, so it has a negative effect on social support which is represented by the path p9.

H21. Family strain, friend strain, and teacher strain are positively associated with each other.

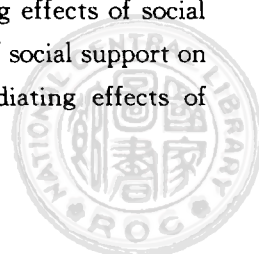H22. Strain will have a direct and positive effect on negative life events.

H23. Strain will have a direct and negative effect on social support.

H24. Strain will have direct and positive effects on depression and delinquency.

H25. Strain will have indirect and positive effects on depression and delinquency intervened by negative life events.

H26. Strain will have indirect and negative effects on depression and delinquency intervened by social support.

Empirical studies have found that negative life events can lead to depression and delinquency. These direct and positive relationships are examined by paths p10 and p11. In addition, social support has been viewed as an important protective factor which can reduce depression (Wolchik et al., 1989; Gore et al., 1992; Dubois et al., 1992; Barrera and Garrison-Hones, 1992; Gore and Aseltine, 1995) and criminal deviance (Stacy and Newcomb, 1995). Paths p12 and p13 represent the directly negative effect of social support on depression and delinquency. Moreover, social support may intervene in the relationship between undesirable life events and distress in two different ways. The first way is a stress-buffering effect. It implies that the presence of undesirable life events and a lack of social support will lead to an increase in depression and delinquency. Paths p15 and p16 examine the stress-buffering effect on depression and delinquency, respectively. Second, social support may mediate the effect of undesirable life events. So far, empirical studies have typically focused on the direct and buffering effects of social support, but much less attention has been paid to its mediating effect of social support on adolescents. Since the empirical evidence has shown significant mediating effects of

social support on adults, I believe that the presence of high social support may reduce the direct effect of undesirable life events on adolescent depression and delinquency which represented by the path p14.

H31. Family events, friend events, and personal events are positively associated with each other.

H32. Negative life events will have a direct and negative effect on social support.

H33. Negative life events will have direct and positive effects on depression and delinquency.

H34. Parental support, friend support, and teacher support are positively associated with each other.

H35. Social support will have direct negative effects on depression and delinquency.

H36. Social support will mediate the effects of negative life events on depression and delinquency intervened by social support.

H37. The interaction of negative life events and social support will have negative effects on depression and delinquency.

Data and Sampling

Data for the current study are collected as a research project on juvenile delinquency by Dr. Sheu and Dr. Ma in Taipei Hsien, Taiwan, between February and July of 1996. They are the first wave of a three-year longitudinal study. Two-stage sampling technique is employed to select sample. In the first stage three junior high schools are randomly selected from the junior high schools in Hsinchuang, Taipei Hsien. In the second stage, three classes are randomly selected from the second grade (age about fourteen) or third grade (age about fifteen) of each school while the gender ratio between males and females are controlled to be 3 to 1. Field work was conducted by trained interviewers from the Central Police University. The survey of approximately one and half hour in length was conducted in each class. The total number of respondents is 422. Questionnaire consists of social and demographic characteristics of the parents and students; depression and delinquency; social bonds and social support; as well as chronic strain and negative life events. The descriptive statistics of socioeconomic characteristic for study sample are shown in Table1.

Table 1. The Descriptive Statistics of Socioeconomic Characteristics for Study Sample, 422 Adolescents in Taipei Hsien, Taiwan, 1996

Socioeconomic Characteristics	Total (N=422)	Males (N=303)	Females (N=119)
Gender			
Males (%)	71.80	100.00	0.00
Females (%)	28.20	0.00	100.00
Age (Mean Number of Year)	14.38	14.36	14.41
Family Structure (%)			
Both-Parent	84.86	85.80	82.40
Single-Parent	6.64	5.90	8.40
Other Relative	8.50	8.30	9.20
Father Education (%)			
Illiterate	1.70	2.00	.80
Elementary School	41.40	42.60	38.70
Junior High School	29.20	30.00	26.90
High/Vocational School	22.70	21.50	26.10
Junior College	3.30	2.60	5.00
College or University	1.50	1.30	1.70
Graduate School	.20	.00	.80
Father Occupational Status			
Employment	89.10	89.40	88.20
Unemployment	10.90	10.60	11.80
Mother Education (%)			
Illiterate	4.00	4.30	3.40
Elementary School	46.20	46.50	45.40
Junior High School	31.10	30.30	32.80
High/Vocational School	16.60	16.20	17.60
Junior College	1.40	2.00	0.00
College or University	0.70	0.70	0.80
Graduate School	.00	.00	.00
Mother Occupational Status			
Employment	63.30	64.40	60.50
Unemployment	36.70	35.60	39.50

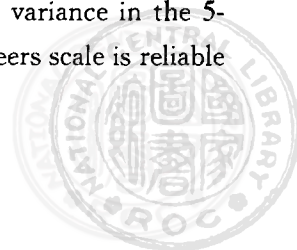# Measurement of Concepts

A. Dependent Variables

Thirty-six individual delinquency behaviors representing the delinquent acts generally committed by adolescents in Taiwan are included in the scale. Among the areas measured are responses to questions about running away from home, school delinquency

(3 items), trouble with police (2 items), sexual related behaviors (6 items), drug use (3 items), theft-vandalism (6 items), assault-threat (5 items), and other general delinquency (10 items). High scores on this scale will demonstrate frequent engagement in delinquent acts. Factor analysis of the delinquency scale show that the scale explains 25.5 percent of the variance on 36 items. Reliability analysis shows that the overall delinquency scale is reliable (alpha = .89). A composite score is computed by summing the delinquency items. Hence, the latent concept of delinquency is indexed by a single empirical indicator in the structural equation model.

According Lin's Chinese Depressive Symptom Scale (CDS) (Lin, 1989), in current study 13-item depressive symptoms are adapted from Lin CDS scale and revised for adolescents. Respondents were asked if they had the feelings as expressed in the 13 items in the past six months. The higher the score the more frequently a respondent fells the symptom. The reliability analysis shows that the 13-item scale is reliable (alpha = .85) and it accounts for 36.0 percent of the variance in the scale.

B. Social Control

Attachment to school is represented by indices of negative attitude to school, academic achievement, self-concept of school ability, and the adolescent perception of teachers' interest in him. The sum of items then represents attachment to school. The higher the score, the more likely the adolescent attaches to his/her school. Attachment to school accounts for 33.7 percent of the variance in the 7-item scale. In addition, the alpha for the 7-item scale is .64. Family bonds are operationalized by two sets of scales corresponding to the major elements of attachment to father and mother, separately. Attachment to father/mother is measured by father/mother's supervision (4 items), communication with father/mother (6 items), and closeness to father/mother (7 items). The higher the score is, the more attached an adolescent is to his father/mother. The reliability analyses show that the overall attachment to parents scales are reliable (alpha = .92 for attachment to father and alpha = .93 for attachment to mother, respectively). Attachment to father explains 43.7 percent of the variance in the scale, while attachment to mother explains 47.2 percent of the variance in the scale. Attachment to peers is measured by adolescent relationship with friends including sharing private thoughts and feelings, asking advice, trust, identification, and discussing family problems. The higher the score is, the more attached an adolescent is to his/her friends. Attachment to peers explains 54.8 percent of the variance in the 5-itme scale. The reliability analysis also show that the attachment to peers scale is reliable
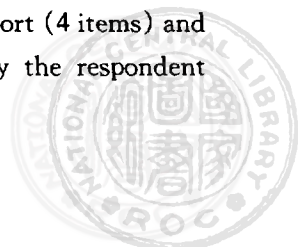
(alpha = .79).

C. Strain

Strain is assessed by 16 strain-related aspects, including being outsider with family, feeling lonely with family, interest in respondent problems, being bad kid, being messed up, breaking rules, getting into trouble, doing things against law, not fitting well with friends, and feeling lonely with friends. Results form factor analysis produce 3 factors for strain items. The first factor, labeled as family strain", accounts for 44.4 percent of the variance in the strain scale and is basically represented by items related to parents and family member. The second factor, labeled as teacher strain", explains 14.0 percent of the variance in the strain scale. It deals with the relationships between adolescents and teachers. The third factor, labeled as peer strain, explains 9.7 percent of the variance in the strain scale. It represents the degree to which respondents feel isolated by peers. These three dimensions of strain are formed subscales by summing the items that have the higher loading on the respective factors. Thus the latent concept of strain is indexed by three empirical indicators in the structural equation model.

D. Negative Life Events

I utilize a 47-item scale of negative life events that draws from the instrument developed by Gore et al. (1992) and some major events that are more likely to happen in Taiwan. For each item, respondents were asked whether an event had happened in their life (yes = 1; no = 0). Three classes of life events have been identified as important dimensions for adolescents, including personal events (7 items), family events (32), and friends' events (8 items). The sum of the items for each subscale forms the negative life events for each subscale. The higher the score is, the more negative life event a respondent, family member, or friend experienced. Three subscales are significantly correlated with the total scale (ranging from .47 to .81) and reliable (ranging from .42 to .75). Thus the latent concept of negative life events is indexed by three empirical indicators in the structural equation model.

E. Social Support

12 items comprise the index of enacted support respondents received from parents, teachers, or peers, respectively. The measures of social support assess the degree to which parents, teachers, and friends actually provide instrumental support (4 items) and expressive support (8 item). The higher the score, the more likely the respondent

actually receives support from family, peers, or teachers. Three subscales are high correlated to the total scale (ranging from .68 to .88) and have reasonable reliability (ranging from .88 to .92). Thus the latent concept of social support is indexed by three empirical indicators in the structural equation model.

Strategies of Testing Model

To examine the causal model, analyses will require using structural equation models such as LISREL because of the number of indicators for latent variables (or concepts). The computer software, LISREL version 8. 14, is employed to test the model parameters. The LISREL model can be decomposed into two submodels: a measurement model and a structural model. The measurement model defines relations between observed indicators and latent variable such as the linkage between attachment to family bonds and social bonds in Figure 1. For the latent variable with multiple dimensions, such as parental support and friend support and teacher support, the indicator with the highest loading on the latent variable will be fixed to be 1. Hence, it guarantees that each unit of change in the latent variable corresponds to a unit of change in this indicator (Hayduk, 1987). The structural model specifies which latent variable directly or indirectly influences other latent variables such as the effects of social bonds on depression in Figure 2. The discussion of results will focus on the completely standardized parameter estimates generated from the final model that is the best fit with the data. In order to obtain a model which is appropriate to the data and fit closely, several factors, such as interpretability of the model, feasibility of parameter estimates, and goodness-of-fit of the model, are considered.

Results and Findings

A. Estimation of the Overall Model

Table 2 shows that the goodness of fit for the initially proposed model has a reasonable fit with the data (Chi-square = 495.66 with 97 degrees of freedom; RMSEA = .099; RMR = .077; GFI = .90; AGFI = .81). Although the chi-square value is significant, this may be due to the sample size. The final model (Figure 2) explains 43 percent and 36 percent of the variance in depression and delinquency, respectively. Results from the measurement model (Table 3) indicate that attachment to father is the most reliable indicator for social bonds. Among the three subscales of strain, family strain is the best indicator. Negative life events are best represented by friends' life
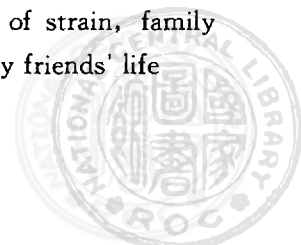
Table 2. Goodness-of-fit Measures Yielded from the Estimation Process for the Proposed Model of Depression and Delinquency for 422 Adolescents in Taipei Hsien, Taiwan, 1996

Model	Chi-Square; df	RMSEA	RMR	GFI	AGFI
Initial Model	495.66; 97	.099	.077	.90	.81
Interaction Model	639.78; 125	.099	.083	.88	.79

RMSEA   Root Mean Square Error of Approximation
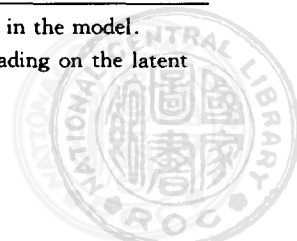RMR   Root Mean Square Residual
GFI   Goodness-of-fit Index
AGFI   Adjusted Goodness-of-fit Index

Table 3. Factor Loadings (Completely Standardized Parameter Estimates) of the Measurement Model for 422 Adolescents in Taipei Hsien, Taiwan, 1996

Empirical Indicators	Latent Concepts						
	Gender[1]	Social Bonds	Strain	Life Events	Social Support	Depression	Delinquency
Gender	1.00						
Attach to Father		1.00[2]					
Attach to Mother		.56***					
Attach to Friends		.30***					
Attach to School		.61***					
Family Strain			1.00				
Friend Strain			.80***				
Teacher Strain			.77***				
Family Events				.77***			
Friends' Events				1.00			
Personal Events				.57***			
Parental Support					1.00		
Friends' Support					.15***		
Teachers' Support					.67***		
Depression						1.00	
Delinquency							1.00

1. Family structure, fathers' education, and fathers' occupation status were controlled in the model.
2. For the latent concepts with multiple dimensions the indicators with the highest loading on the latent concepts were fixed to be 1. * * * p< .00

events. Parental support is found to be the best indicator among three subscales of social support.

B. Effects of Social Bonds

According to Hirschi's social bond theory, one effect of social bonds is to weaken the adolescent interpersonal conflict to conventional people and institutions. Thus, social bonds are hypothesized to be negatively associated with strain. Support is obtained for this hypothesis. Adolescents having higher levels of social bonds are found to have lower interpersonal conflict with significant others than their counterparts having lower levels of social bonds. In addition, social bonds are hypothesized to decrease the occurrence of negative life events. This hypothesis is supported by the present finding (Figure 2 and Table 4). A higher level of social bonds is found to lead to lower levels of negative life events. This finding lends support to the argument that adolescents who have positive attachment relationships are likely to experience fewer negative life events. The attachment relationships do have a significant direct impact on social support. This finding is consistent with previous arguments in Western studies that attachment relationships are the basis of subsequent support perceptions and therefore, influence the quality of social support (Flaherty and Richman, 1986; Hazan and Shaver, 1987; Parker and Barnett, 1988). Findings also indicate that adolescents who have stronger bonds are less likely to feel depressed when they have interpersonal conflict with significant others $(-.13 \times .47 = .06; p < .01)$. However, the indirect effect of social bonds on depression transmitted via social support is non-significant $(.40 * -.07 = -.028,$ see Table 4). Similarly, the indirect effect of social bonds on depression as mediated by negative life events is non-significant.

The effect of social bonds on delinquency is a negative and achieves statistical significance. This finding suggests that social bonds do influence adolescent behaviors after controlling for contextual characteristics, stressors, social resources, and psychological distress. On the other hand, the negative indirect effect of social bonds on delinquency intervened by negative life events is significant $(-.11 * .36 = -.04; p < .05,$ see Table 4). Thus, adolescents having strong bonds to significant others are less likely to be involved in delinquency than adolescents having weak social bonds even when they experience negative life events.
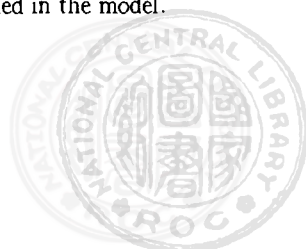
Table 4. Decomposition of Effects of Gender, Social Bonds, Strain, Negative Life Events, and Social Support for 422 Adolescents in Taipei Hsien, Taiwan, 1996

Dependent Variables	Independent Variables	Direct Effect	Indirect Effect1 via			Total Effect
			SB	NLE	SS	
Social Bonds (SB)	Gender[2]	.09*				.09*
Negative Life Events (NLE)	Gender	-.14**	-.01			-.15**
	Social Bonds	-.11**				-.11**
	Strain	.19**				.19**
Social Support (SS)	Gender	-.08*	.036	.01		-.03*
	Social Bonds	.40**		.008		.42**
	Strain			-.013		-.07**
	Negative Life Events	-.07+				-.07+
Depression	Gender	.32**			.006	.33**
	Social Bonds				-.028	-.09**
	Strain	.47**				.48**
	Negative Life Events				.005	.01
	Social Support	-.07*				-.07*
Delinquency	Gender	-.21**	-.014	-.05	.006	-.27**
	Social Bonds	-.16**		-.04*	-.028	-.26**
	Strain	.16**		.068*		.26**
	Negative Life Events	.36**			.005	.37**
	Social Support	-.07+				-.07+

1. Only the indirect effects transmitted via negative social bonds, life events, or social support are shown in in the table.

2. Family structure, fathers' education, and fathers' occupation status were controlled in the model.
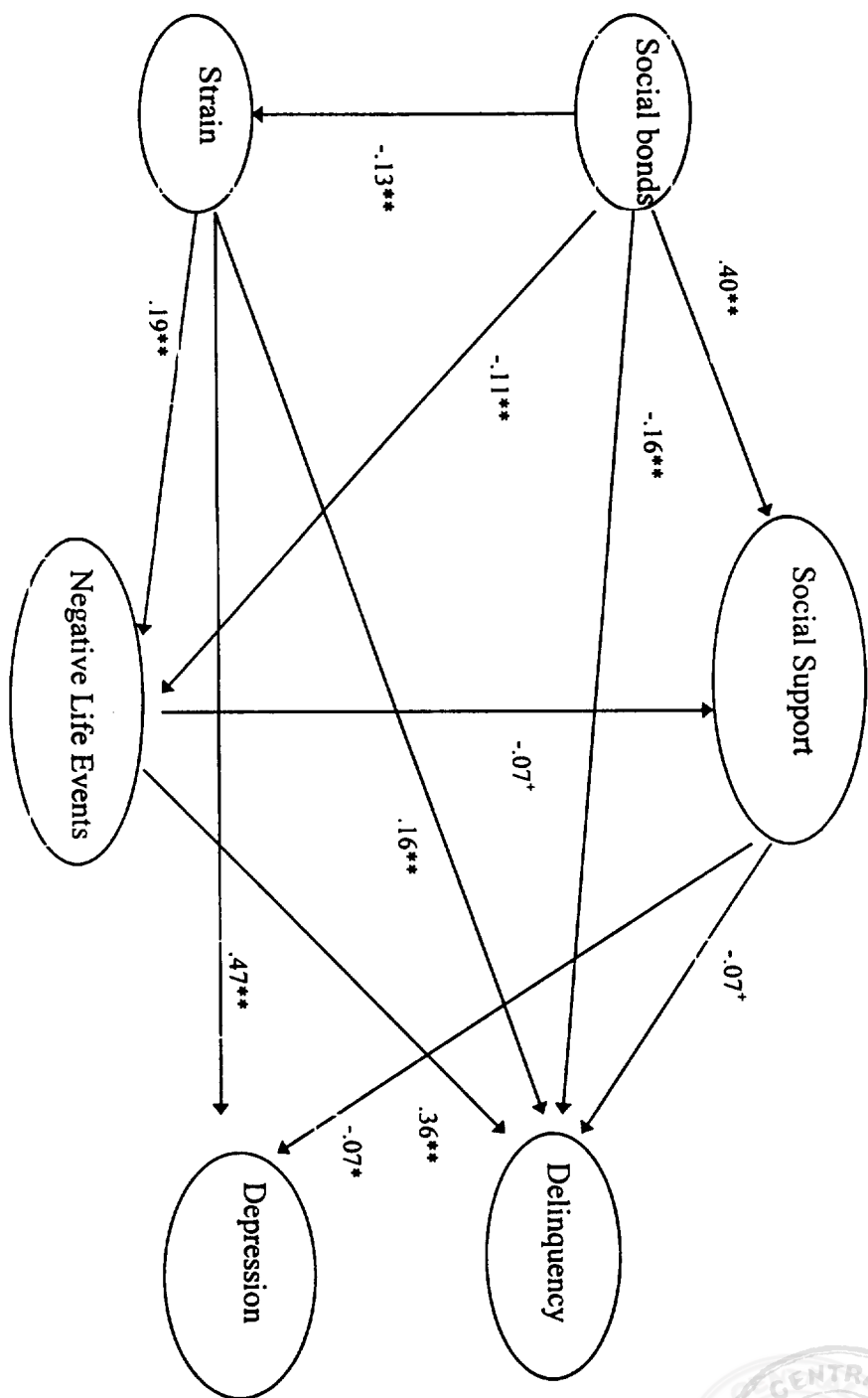
+   p< .10 ; *   p<.05; **   p<.01

Figure 2 The Structural Model for the Effects of social Factors on Delinquency and Depression
Note: Family structure, father education, ad father occupational status were controlled in the model.
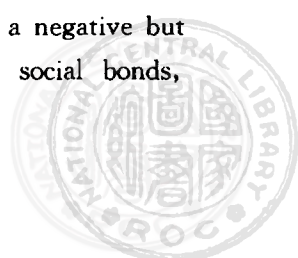+ p<.1; * p<.05; ** p<.01

C. Effects of Strain

Respondents having more interpersonal conflicts with significant others experience more negative life events than those who have less interpersonal conflicts. Although strain is argued to reduce adolescent social support from significant others, the findings show that strain does not significantly decrease enacted support received. In addition, respondents having higher conflicts with significant others receive less support than their counterparts in lower conflict when they experience negative life events. However this indirect effect of strain on social support transmitted via negative life events is non-significant ($.19 *.07 = -.013$; $p < .13$, see Table 4). When respondents experience stressful events, they may still receive some support from their parents, teachers, or friend's event though they do not have strong positive relationship with their parents, teacher, or friends. This may be due to the traditional Chinese norm of the relationships between parents and children. In Chinese society, parents are expected to support their children (especially financial support) before the children complete their education, obtain a full time job, or get married. Thus interpersonal conflict does not have a significant negative impact on social support, as found in Western studies.

Poor-quality relationships with significant others are found to have a significant positive effect on depressive symptoms. However, the indirect effects of strain on depression transmitted via either negative life events or social support is non-significant. This is due to the non-significant effects of strain on social support and negative life events on depression. On the other hand, strain does have a significant positive impact on delinquency. Adolescents having more conflicts with significant others are more likely to be involved in delinquency than those who have fewer conflicts with significant others. The indirect effect on delinquency is transmitted via negative life events ($.19 *.36 = .068$, $P < .05$, see Table 4). Concerning the effect of strain on delinquency, about a quarter ($.068/.26 = .26$) is due to the occurrence of negative life events. Thus interpersonal conflict between the adolescents and significant others may provoke the occurrence of negative life events and therefore, increase adolescent anti-social behaviors.

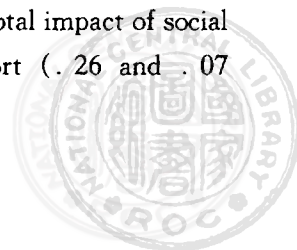## D. Effects of Negative Life Events and Social Support

Table 4 shows that adolescents experiencing negative life events are more likely to commit delinquent behaviors. Unexpectedly, negative life events have a negative but non-significant effect on depression when contextual characteristics, social bonds,

strain, resources, and delinquency are controlled. It may be explained by Wheaton's " catharsis effect hypothesis" (1990). Adolescents who have a great deal of interpersonal conflict are in a situation of considerable chronic stress. Life events may then function as a resolution of that stress for some respondents. Similar findings were reported by Wheaton (1990). He found that when there are marital problems, the impact of job loss on distress becomes non-significant. Social support is hypothesized to have direct and negative effects on depression and delinquency. These hypotheses are supported by the present findings. Social support is found to reduce depressive symptoms and delinquency. Adolescents receiving more support for their significant others are less likely to feel depressed and to be involved in delinquent acts than those who receive less support. These findings lend support the argument that social support is a protective factor against adolescent behavior problems and psychological distress.

E. Relative Importance of Social Bonds, Strain, Negative Life Events and Social Support

To obtain a sense of the relative importance of different social factors, the present study compares total effects of these variables shown in Table 4. Social support is hypothesized to have a stronger effect on depression than social bonds, strain, or negative life events. However, partial support is found for this hypothesis. The total effect of social support on depression is stronger than negative life events. However, the negative effect of social support on depression is weaker than strain or social bonds, although it is statistically significant. Two reasons may explain these inconsistent findings. First, results of previous studies are based on the direct effects in Ordinary Least Squares Regression. The possible indirect effects of social factors on the outcomes are not taken into account. Second, previous researchers, such as Pearlin and his colleagues (1981), Wheaton (1983), Gore and her colleagues (1992), and Paternoster and Mazerolle (1994), predict the effects of social factors on a single outcomes like depression or delinquency. When other dependent variables like delinquency or drug abuse are controlled, the relative importance of social factors can be changed. It is hypothesized that strain and negative life events will have stronger effects on delinquency than social support. Evidence shown in Table 6.8 supports this hypothesis. Thus social stress has a stronger impact on delinquency than does social resources. In addition, social bonds are hypothesized to exert a stronger impact on delinquency than does social support. This hypothesis is supported by the present findings. The total impact of social bonds is more than 3.7 times as strong as that of social support (.26 and .07

respectively) (Table 4). Thus attachment relationships to conventional persons are more important than support from those persons to prevent adolescents from committing anti-social behaviors.
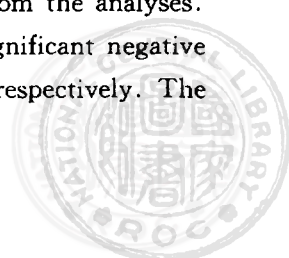
For the relative importance of the different arenas of stress, it is hypothesized that strain will have stronger effects on depression and delinquency than negative life events. Partial support is found for these hypotheses. The results in Table 6.8 show that chronic strain tends to be more important than negative life events in influencing the well-being of adolescents in Taiwan. In addition, previous studies (Agnew and White, 1992; Paternoster and Mazerolle, 1994) suggest that relationship strain has stronger effects on delinquency than negative life events. Contrary results are found in the current study. Results demonstrate that negative life events have a greater effect on delinquency than relationship strain. This may be due to the measurement of negative life events. The measurement of negative life events includes some friends' negative deviant events which are highly correlated with adolescent delinquency. The inclusion of more significant events for adolescents may increase the power of negative events to explain delinquency.

Strain is hypothesized to have stronger effects on depression and delinquency than social bonds. Findings partially support these hypotheses. The total impact of relationship strain on depression is more than 5.3 times as strong as that of social bonds (.48 and -.09, respectively) (Table 4). However, findings show that social bonds are as important as strain in affecting delinquent behaviors.

It is hypothesized that negative life events will have a stronger impact on depression and delinquency than social bonds. Partial support is obtained for the hypothesis that the total effect of negative life events on delinquency is stronger than the total effect of attachment relationships. However, the total effect of social bonds on depression is stronger than the total effect of negative life events, although the direct effect of social bonds on depression is non-significant. This is due to the indirect effect of social bonds on depression transmitted via strain that increases the total effect of social bonds on depression.

Discussion and Conclusion

On the basis of findings in this study, several conclusions can be drawn. First, the proposed model that incorporated elements of social bond theory, general strain theory, negative life events, and social support receives substantial support from the analyses. For the relationships between social bonds and relationship strain, significant negative relationships are found among the total sample, males, and females, respectively. The
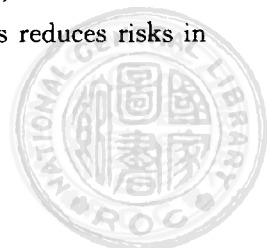
strength of attachment to conventional persons and institutions reduces involvement in delinquency. Although social bonds do not influence adolescent depression directly, adolescents with weaker bonds are more likely to react to strain with depression than those with stronger bonds. In addition, relationship conflicts with significant others increase both levels of depressive symptoms and delinquency. Thus social bonds and relationship strain are significant social factors in predicting adolescent psychological distress and delinquent acts.

Second, regarding the integration of criminological theories with the stress-distress model, the attachment relationship is a precursor in reducing negative life events. Persisting interpersonal conflicts trigger the occurrence of negative life events. Moreover, adolescents having negative life events are more likely to commit delinquent acts. Throughout this study, a stressful event is considered interpersonal in nature if either another person is involved in the stressful situation or if the event occurs in the life of other persons, such as parents or friends, in the individual social network. Clearly social relationships are critical in determining whether a particular situation or event is experienced as stressful. On the other hand, attachment relationships promote the reception of social support, and social support, in turn, has significant impacts on adolescent delinquency and depression. Hence, social resources of an interpersonal nature have an impact on the functioning of adolescents and their personal adjustment.

Third, the integration of risk and protective factors based on criminological theories and stress-distress perspectives is yield significant clues as to how to improve the well-being and decrease deviance in adolescence in Taiwan. According to the integrated model, the exacerbation and increase in adolescent behavior problems and psychological distress can be controlled in two ways: (1) prevention through risk reduction, and (2) enhancement through protective factors.
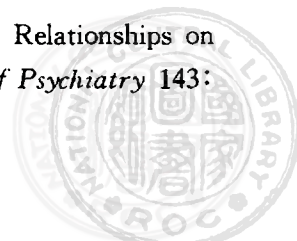
Factors that have been most reliably identified as risk factors for adolescent depression and delinquency in the integrated model are relationship conflicts and negative life events. To prevent adolescent behavior problems and psychological distress, it may be useful reduce or mitigate the effects of factors that put adolescents at risks for the disorders. For example, Weissberg and colleagues (1981) suggest that social problem solving skills training through role playing, class discussion, and self-instructional exercises at school increase adolescents' confidence in their ability to deal effectively with interpersonal conflict. In the Seattle Social Development Project, Hawkins and associates (1992) find that parent training in family management skills reduces risks in family, school, and peer domains.

On the other hand, avoidance of significant negative outcomes is associated with the presence of protective factors such as attachment relationships and social support. Findings from the integrated model suggest that risk reduction by enhancing protective factors can be accomplished both through direct effects of the protective factors on risks and outcomes and through the enhancement of protective factors that mediate the effects of risk exposure. Family factors, such as attachment to parents and parental support, have been found to be the most important protective variables among the measurement variables. Thus attempts to build stronger bonds in the family to provide adequate support to reduce stressful situations are all obvious prevention strategies against delinquency and psychological distress.
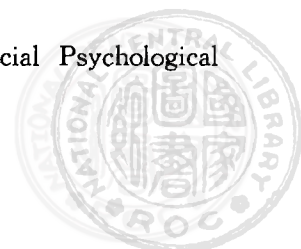
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