Association of Peer Relations to Adjustment Among Chinese Adolescent Newcomers:
A Risk and Resiliency Perspective

by

ZUHRA TEJA

B. A., Simon Fraser University, B.C., 1994
B.Ed., University of British Columbia, B.C., 1996

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES

Department of Educational and Counselling Psychology, and Special Education

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA

© Zuhra Teja 2003
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the head of my department or by his or her representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Education, Psych. and Special Education

The University of British Columbia
Vancouver, Canada

Date April 23, 03
Abstract

From a risk and resiliency perspective, the current study examined the protective role of peer relations with respect to psychological and school adjustment among 122 Chinese adolescent newcomers (ages 11 to 19). Newcomers were defined as early and middle/late adolescents from China who have resided in Canada for 5 years or less. Data were collected via self-reports of their peer relations (i.e., characteristics of friendship networks, peer group integration, quality of best friendships) and psychological adjustment (i.e., psychosomatic symptoms, anxiety, and depression), and teacher reports of their school adjustment (i.e., competent behaviors, problem behaviors). Results revealed that the large majority of Chinese adolescent newcomers reported having friends who were of the same gender, from the same country, and of similar age. As well, gender and age differences emerged with regard to peer relational and adjustment variables. Results of hierarchical regression analyses revealed that dimensions of peer relations explained significant amounts of variance in psychological and school adjustment outcomes. Peer group integration was a consistent significant predictor of psychological and school adjustment. As well, friendship quality was a significant predictor of peer group integration. Results of this study provide cross-cultural support for the role of peer relations as a compensatory (protective) variable that predicts positive adjustment among Chinese adolescent newcomers.
Table of Contents

ABSTRACT ............................................................................................................... II

TABLE OF CONTENTS ......................................................................................... III

LIST OF TABLES .................................................................................................... VII

LIST OF FIGURES ................................................................................................. VIII

ACKNOWLEDGEMENTS ......................................................................................... IX

INTRODUCTION ..................................................................................................... 1

- Risk and Resiliency .......................................................................................... 1
- Adolescent Peer Relations .............................................................................. 2
- Adolescent Newcomers .................................................................................. 3
- Purpose ............................................................................................................. 5
- Rationale .......................................................................................................... 6
- Significance of the Research ......................................................................... 7

LITERATURE REVIEW .........................................................................................8

- Introduction .................................................................................................... 8
- Risk and Resiliency: Definitions ................................................................. 8
- Operationalizing Risk and Resiliency .......................................................... 9
- Perspectives of Risk and Resiliency ............................................................. 10
- Risk and Resiliency Theory: Historical Context ....................................... 11
- Models of Resiliency ..................................................................................... 13
- Challenge Model of Resiliency ................................................................. 13
Peer Group Integration ................................................................. 61
Friendship Quality ................................................................. 62
Psychological Adjustment ......................................................... 62
Teacher Report of School Adjustment .......................................... 63
Procedure ................................................................................. 64

RESULTS ..................................................................................... 66

Characteristics of Friends .......................................................... 66
Gender and Age Differences Among Peer Relational and Adjustment Variables .......................................................... 67
Friendship Network .................................................................... 67
Peer Group ................................................................................ 69
Best Friendship ......................................................................... 71
Psychological Adjustment .......................................................... 73
School Adjustment .................................................................... 75

Interrelations among Variables ................................................... 76
Predicting Adjustment from Characteristics of the Friendship Network ................................................................. 78
Predicting Adjustment from Friendship Quality and Peer Group Integration ......................................................... 79
Predicting Peer Group Integration from Friendship Quality .................................................................................. 86

DISCUSSION .............................................................................. 89

Friendship Characteristics .......................................................... 90
Gender and Age Differences in Peer Relations .......................................................... 90
Association of Peer Relations to Psychological and School Adjustment ................................................................. 93
Strengths and Limitations ............................................................ 97
# List of Tables

1. Intercorrelations Among Demographic Characteristics of the Friendship Network
   68
2. Gender and Age Differences on Peer Relational Variables
   70
3. Chi-Square Analyses of Gender and Age Differences on Characteristics of Best Friend
   72
4. Gender and Age Differences on Adjustment Variables
   74
5. Intercorrelations Among Peer Relational Variables, School Adjustment, and Psychological Adjustment
   77
6. Predicting Psychological Adjustment from Friendship Network Characteristics: Regressions
   80
7. Predicting School Adjustment from Friendship Network Characteristics: Regressions
   81
8. Predictors of Psychological Adjustment: Regressions
   83
9. Predictors of School Adjustment: Regressions
   85
10. Predicting Peer Group Integration from Friendship Quality: Regressions
    87
List of Figures

1. A conceptual illustration of the compensatory model of resiliency (Garmezy et al., 1984)... 14

2. Conceptual illustration of the protective effects model of resiliency (Luthar, 1993)... 16
Acknowledgements

I would like to express my sincere gratitude to all those who supported me throughout the completion of my thesis project. First, I would like to thank my advisor, Dr. Kimberly Schonert-Reichl for her tremendous guidance and encouragement, and for so generously sharing her expertise.

Second, I would like to thank my research assistants, including translators, for their time. In particular, I would like to thank Veronica Smith for her help, and for so openly sharing her wisdom.

I am extremely grateful to all the principals, teachers, and students who believed in the importance of this project, and kindly sacrificed their time to participate. I am indebted to Mr. Derek Passaglia for his continuous support throughout the process.

I would like to thank my committee members, Dr. Kadriye Ercikan and Dr. Jennifer Shapka, for their helpful suggestions.

Finally, I would like to express my most sincere gratitude to my parents for their incredible patience, understanding, and encouragement. I would also like to thank all my friends, especially Karim, who supported me throughout the completion of the project.
Introduction

Risk and Resiliency

Research on risk and resiliency is burgeoning in the adolescent literature (e.g., Grossman et al., 1992; Rae-Grant, Thomas, Offord, & Boyle, 1989). Resiliency is defined as "positive adaptation within the context of significant adversity" (Luthar, Cicchetti, & Becker, 2000, p. 543). Adversity is characterized by risk factors that, according to Garmezy (1983), are defined as factors that endanger the child's psychological well-being and positive behavioral development. Some researchers refer to risk factors as stressors or stressful experiences (e.g., Luthar & Zigler, 1991; Weist, Freedman, Paskewitz, Proescher, & Flaherty, 1995). Horowitz (1989) has identified five areas of risk that have been addressed in the literature: (1) risk factors associated with premature infants and babies with prenatal complications; (2) risk factors associated with conduct and behavioral disorders (e.g., delinquency, substance abuse); (3) risk factors associated with exposure to toxins during infancy, such as alcohol; (4) risk factors associated with critical developmental periods; and (5) risk factors associated with social and psychological stressors (e.g., family problems, poverty). This latter area of literature was the focus of the present study.

Risk factors that interfere with a child's psychological adjustment have been identified in resiliency literature, and include family problems (e.g., Cicchetti & Rogosch, 1997; Herrenkohl, Herrenkohl, & Egolf, 1993; Rae-Grant et al., 1989) and poverty (e.g., Weist et al., 1995; Werner and Smith, 2001). Researchers have found correlations among these risk factors. For instance, Rutter (1979) found that marital problems, large family size, low social status, criminal behavior of the father and psychiatric disorder of the mother, were correlated with child psychiatric disorder. As well, Werner and Smith (2001), in their 30-year longitudinal study of 72 at-risk children living in Kauai, found that many of the children in their study had accumulated multiple risk factors, such as perinatal stress and low socio-economic status, that impeded the
children's positive adjustment. One-third of these children, however, were able to overcome the challenges they faced, and thus were identified as resilient. Werner and Smith concluded that this group was resilient because protective factors were in place that promoted the individual's healthy adjustment. These protective factors included positive self-concept, a close bond with a caregiver, and emotional support from outside the family. Masten and Coatsworth (1998) posit that positive individual, familial, and social-contextual factors may buffer the negative effects of stressors and promote healthy adjustment among individuals at-risk. Social-contextual factors include affiliation with a religious community, involvement in extra-curricular activities, and pro-social adolescent peer relations (Dubow & Reid, 1993). The focus of the present study was on the protective role that peer relations may have on a group of individuals identified as experiencing significant stress, that is, adolescents newly arrived to Canada from China. According to researchers, the ability to build pro-social peer relations is one characteristic of the resilient child (Luthar, Doernberger, & Zigler, 1993; Masten & Coatsworth, 1998). Moreover, positive relationship with peers can serve as a protective factor that promotes resilience (e.g., Gauze, Bukowski, Aquan-Assee, Sippola, 1996; Hodges, Boivin, Vitaro, & Bukowski, 1999), especially during adolescence (e.g., Rubin et al., 1997; Sullivan, 1953).

**Adolescent Peer Relations**

Peers are individuals who are about the same age or maturity level as an individual (Santrock, 1998). According to Sullivan (1953), during adolescence, peer relations influence adjustment in adulthood and prepare adolescents for developing adult relations. The reason why peers have a significant influence during adolescence is that more time is spent interacting with peers than with anyone else (e.g., Blyth, Hill, & Thiel, 1982; Rubin et al., 1997). It is important to note that peers can have either a positive or a negative influence on adjustment (Berndt, 1999). Positive peer relations have been associated with positive adjustment, whereas
negative peer relations have been linked to negative adjustment (e.g., Babinski, 1994; Berndt & Keefe, 1995).

Researchers have delineated different dimensions of peer relations, including crowds, peer groups, close friendships, and best friendships (e.g., Brown, 1990; Hartup, 1993). Although a number of researchers have ignored the distinctions between different dimensions of peer relations (e.g., Helsen, Volleburgh, & Meeus, 2000; Munsch & Blyth, 1993), it is necessary to make these distinctions because each dimension has its own unique characteristics (Savin-Williams & Berndt, 1990). Dimensions investigated in the present study include: (1) friendship network (all those dyadic relationships which are committed, voluntary and reciprocal in nature, and in which both adolescents have equal control; Birch & Ladd, 1996; Hartup, 1993) (2) peer group (i.e., a group of peers who share common interests and activities; Hayden Thomson, 1989); and (3) best friendship, which can be distinguished from close and general friendships by its high level of "mutual attraction" (Hartup, p. 4). Specifically, the goal of the present investigation was to examine the relation of friendship network characteristics, peer group integration, and friendship quality to psychological and school adjustment among an at-risk sample of adolescents. The at-risk population of interest in the present investigation comprised of Chinese adolescents who had recently resettled in Canada.

Adolescent Newcomers

Before discussing the rationale for identifying adolescent newcomers as an at-risk population, it is necessary to first define the term newcomer. Researchers have not yet reached consensus on its definition (e.g., Cornille, Bayer & Smyth, 1983; Portes, 1999). However, in an on-line Citizenship and Immigration Canada (CIC; 2001) document, a newcomer is defined as an individual who has resided in Canada until he or she applies for citizenship. Individuals may apply for citizenship if they have lived in Canada for "at least three years out of the four years
right before the day [of application]" (CIC, 2001, Citizenship section, ¶ 2), and may receive
citizenship status several months or more after application. According to these guidelines,
newcomers may acquire citizenship status approximately four to five years after initial arrival
into Canada.

Researchers have identified newcomers as individuals who have resided in their host
country for a maximum of four to six years (e.g., Goodenow & Espin, 1993; Horenczyk & Tatar,
1998). This definition is similar to the definition provided by Citizenship and Immigration
Canada (2001). Therefore, for the purposes of the present study, the term newcomer has been
defined as ‘adolescents from China who have resided in Canada for five years or less’.

Having defined the term newcomer, it is next necessary to understand why adolescent
newcomers may be considered a population at risk for negative outcomes. Cole (1998)
explains that the migration process is extremely stressful for children and that protective
mechanisms need to be in place to alleviate the stress. Adolescent newcomers face significant
challenges that need to be overcome in order to ensure positive adjustment. Not only must they
adjust to maturational changes (e.g., puberty), they must also adjust to cultural changes
(Minister of Supply and Services Canada, 1988). For adolescents who do not speak English,
for example, the communication barrier may create frustration (Fuligni, 1997). As well,
although they learn English at school, they may be unable to communicate in English at home
(Hyman, Vu, & Beiser, 2000). By the same token, although they speak their native language
fluently at home, they may be unable to communicate with peers at school.

Hyman et al. (2000) interviewed sixteen adolescent newcomers (ages 15 to 20) from
Southeast Asia about their adjustment in Canada. Findings indicated that school adjustment
was extremely difficult. Adolescent newcomers did not feel socially integrated, and reported
having difficulties dealing with the incompatibility between their own culture and the culture of
their host country. As can be surmised, adolescent newcomers may be an especially
vulnerable population due to the stresses associated with migration that are experienced simultaneously with the myriad of biological, peer-related, and school-related stressors.

Cole (1998) argues that in order to promote healthy adjustment, newcomers must have access to as many protective resources as possible. Specifically, adolescent newcomers must have access to familial resources (e.g., close bond with parents), individual resources (e.g., good social skills) and social-contextual resources (e.g., positive peer relations) that will promote positive adjustment. The role of peer relations as a protective resource is of interest in the present study.

Purpose

The main purpose of the present study was to examine the association of peer relations to psychological and school adjustment in a population of adolescents who are newly arrived to Canada (i.e., newcomers). Three aspects of peer relations were investigated: (1) nature and size of the friendship network, (2) peer group integration, and (3) quality of best friendships. As well, the association of these variables to self-reports of psychological adjustment and teacher reports of school adjustment were examined. Specifically, the following question was posed: "Will positive peer relations be a compensatory (i.e., protective) factor that predicts positive adjustment among Chinese adolescent newcomers?" Although researchers have examined correlations between peer relations and adjustment among adolescents (e.g., Buhrmester, 1990; Schonert-Reichl, 1995), research has rarely been conducted on the relation between peer relations and psychological and school adjustment among adolescent newcomers. As will be demonstrated, the present investigation is both necessary and significant, providing insight into the peer relations and adjustment of an at-risk group that is significantly large in Canada, and yet has received little attention in previous research (Florsheim, 1997).
**Rationale**

Much of the extant research in the area of risk and resiliency has focused on individual and family variables, and little focus has been assigned to social-contextual factors—specifically, peers (Zimmerman & Arunkumar, 1994). The present study was intended to extend research on resiliency by examining the role of social-contextual factors, specifically peer relations, in adjustment.

In addition, the issue of culture is often overlooked in the general area of risk and resiliency (e.g., Compas, Hinden, & Gerhardt, 1995; Masten & Coatsworth, 1998), and in the more specific area of adolescent peer relations (Hartup, 1993). Much of the previous research on adolescent peer relations has focused on White and African-American children (Savin-Williams & Berndt, 1990), and very few researchers have investigated peer relations of adolescents from diverse cultural backgrounds (e.g., Compas et al., 1995; Rubin et al., 1997).

More studies of ethnic minority adolescents are necessary because of the increase in ethnic diversity as a consequence of immigration (Compas et al., 1995). The newcomer population in Canada, for instance, rapidly grew in the 1980's and, over the past few years, has remained consistently high, especially in British Columbia, as illustrated in the on-line Citizenship and Immigration Canada publication (2001). In 2001, approximately 250, 000 people immigrated to Canada. Of these, 53% arrived from Asia and Pacific regions. Appendix A shows a graphic illustration of the growing population of Chinese immigrants over the past several years. In British Columbia in particular, the largest immigrant population is from China. These statistics clearly indicate that the Chinese immigrant population in Canada is significant. To date, however, adjustment of adolescent newcomers has received little attention (e.g., Florsheim, 1997; Fuligni, 1998; Hyman et al., 2000); and the Chinese adolescent population in particular has received little attention (e.g., Florsheim, 1997; Way & Chen, 2000). Hence, the
present investigation fills a gap in the research on risk and resiliency, adolescent peer relations, and Chinese adolescent newcomers.

Significance of the Research

Further research that will promote awareness of the needs of adolescent newcomers has both practical and theoretical significance. Clearly, educators need to be aware of the needs of this growing newcomer population in order to effectively service them. In order for educators and other professionals to service these needs appropriately, however, it is necessary to first assess the needs. The present study provides critical information about the social, psychological, and academic needs of this at-risk population, so that professionals are better informed of the areas in which adolescent newcomers require support.

From a theoretical perspective, the present study provides a cross-cultural perspective on risk and resiliency theory and, specifically, on the role of peer relations in adjustment of adolescent newcomers. It is hoped that the present study will prompt further research on the peer relations of adolescent newcomers because, clearly, there is a need to promote awareness of this at-risk population.
Literature Review

Introduction

A number of researchers have explored the protective mechanisms associated with resiliency among adolescents identified as at risk. Following is a discussion of the extant research on the resiliency among adolescents at risk with a specific focus on the role of peers in providing a buffer against stress. Next research on the peer relations of adolescent newcomers will be presented. As will become apparent, a paucity of research has been conducted on the role that positive peer relations play in serving as a protective mechanism for adolescent newcomers. The limited risk and resiliency research conducted on adolescent newcomers points to the necessity of the present study.

Risk and Resiliency: Definitions

Because there is little consensus on the definition of resiliency (Kinard, 1998; Luthar et al., 2000; Zimmerman & Arunkumar, 1994), for the purposes of the present study, the following definition of resiliency has been used: "manifested competence in the context of significant challenges to adaptation or development." (Masten & Coatsworth, 1998, p. 206) The term significant challenges is synonymous with risk (Luthar et al., 2000), or stressors (Luthar & Zigler, 1991). Examples of stressors include low socio-economic status, family relational problems, and migration to a new country. Competence, according to Masten and Coatsworth (1998), refers to a "pattern of effective adaptation to the environment" (p. 206). The difference between competence and resilience is the presence of a stressor. That is, an individual is competent if he or she functions well in the absence of a stressor. An individual is considered resilient if he or she is able to successfully carry out various developmental tasks, and is able to achieve in
different domains that require "behavioral, social and cognitive functioning" (Kinard, 1998, p. 669) in the presence of a stressor.

According to Masten and Coatsworth (1998), developmental tasks of middle childhood include school adjustment (e.g., attendance, appropriate conduct), academic achievement, and positive peer relations. Developmental tasks at the adolescent stage involve successful transition to secondary schooling, academic achievement, involvement in extra-curricular activities, forming a sense of identity, and forming positive peer relations and close friendships within and across genders (Masten & Coatsworth, 1998). For children who have experienced stress in their lives, however, completing these developmental tasks can be challenging.

Zimmerman and Arunkumar (1994) posit that although adolescents may demonstrate resiliency in some developmental tasks, they may not demonstrate resiliency in other developmental tasks and that, with time, circumstances can change that can increase or decrease adolescents' level of resiliency. In other words, resiliency is a domain-specific construct that is prone to change. Furthermore, some individuals may demonstrate resiliency in many or all areas, whereas others may not demonstrate resiliency at all. How are researchers able to identify resilient and non-resilient individuals? This question will be answered in the following discussion.

Operationalizing Risk and Resiliency

Although the constructs of risk and resiliency have been defined, the ways in which they are operationalized varies across the studies. Researchers (Luthar et al., 2000) have defined risk as including anything from negative stressful life events (e.g., war) to negative environmental conditions (e.g., poverty). Resiliency has been defined as including cognitive ability, and has been operationalized via teacher ratings of academic performance, school records (Luthar, 1991), or face-to-face interviews (Bhattacharya, 2000). As well, resiliency has
been defined as social well-being and has been operationalized via self-reports or peer reports of friendship quality or feelings of peer group integration, for instance (Garmezy, Masten, & Tellegen, 1984; Luthar, 1991). To date, there has been little consensus on how best to operationalize the construct of resiliency, or on which measures to use. Luthar (1993) has argued that because of the domain-specific and unstable nature of the resiliency construct, consensus on its operationalization is not possible. Instead, it would be more appropriate to operationalize the construct within the domain of interest. For the present study, the risk variable of interest is the stress associated with migration, and resiliency is operationalized via self-reports of psychological adjustment and teacher ratings of school adjustment.

**Perspectives of Risk and Resiliency**

In addition to differences in operationalization of risk and resiliency exist differences in perspectives. Luthar et al. (2000) and Masten et al. (1999) concur that resiliency can be examined from two perspectives: a categorical perspective and a dimensional perspective. The categorical perspective involves taking a person-based approach. This involves comparing the well-being of two populations, such as resilient individuals to non-resilient individuals, or individuals who are competent (i.e., successful individuals who have not faced adversity) to individuals who are resilient (i.e., successful individuals who have faced adversity).

The dimensional perspective involves taking a variable-focused approach. This involves examining variables that are indicative of competence, such as academic achievement and social competence. If a variable-focused approach is taken, then the sample may consist of individuals who are all at-risk, and the researcher's objective is to explore the associations between specific risk and/or protective factors that he or she chooses to examine. This perspective also involves analysing the association between these variables, as well as how these variables are associated with psychological adjustment indicators, such as anxiety and
depression. The present study takes a dimensional (variable-focused) approach in examining the adjustment of adolescent newcomers.

The above discussions illustrate the fluidity of the resiliency construct. In other words, it is apparent that the definition of the construct, the operationalization of the construct, and perspectives taken in examining the construct, have been constantly changing, evolving, and broadening since the emergence of the theory over 30 years ago.

**Risk and Resiliency Theory: Historical Context**

The theory of risk and resiliency emerged from studies showing that children in adverse circumstances seemed to be well adjusted despite exposure to risk. Early research in this area included studies on children of schizophrenic mothers (Garmezy, 1974), children of mentally ill parents (Rutter, 1979), and children with multiple risk factors (e.g., Garmezy et al., 1984; Werner & Smith, 2001). For instance, Garmezy et al. (1984), in their pioneering study of resiliency, established Project Competence, a ten-year project assessing the competence of 200 children and their families. Findings based on teacher assessments, peer ratings, and school reports revealed that children with multiple risk factors, including low IQ, low socio-economic status, and unstable home environments, were more disruptive than were children with few of these risk factors. Moreover, of the children with multiple risk factors, some were still able to function academically, and did not display behavioral problems. Garmezy et al. concluded that some children can succeed in the face of significant adversity.

In another well-known study conducted by Rutter (1979) in the Isle of Wight and inner city London, 125 children whose parents were diagnosed as mentally ill were followed over a 10-year period. Interview data revealed that these children did not inherit their parents' illness, and did not display problem behaviors. Rutter concluded that protective factors were accessed that buffered poor outcomes.
Similar to Rutter (1979), Werner and Smith (2001) described a pioneering investigation that explored protective factors of children with multiple risk factors. Over the course of a 30-year period, 201 at-risk children on the island of Kauai were tracked from the pre-natal period to adulthood. They were designated at-risk if they accumulated at least four of the following risk factors: perinatal stress, serious learning or behavioral difficulties, low socio-economic-status, parental alcoholism or mental illness, unstable home environment, parental divorce, or being reared by parents with little formal education. Results at the end of the 30-year period showed that 72 of these individuals grew to become resilient adults without learning or behavioral problems during their school years. In fact, these resilient individuals performed well academically, set realistic goals after high school, and achieved these goals in adulthood. Moreover, they managed their home and social lives well.

In Werner and Smith's (2001) study, various protective factors were identified that predicted positive adjustment for these individuals, including positive temperament, small family size (with four or less children), a close bond with a guardian or relative, employment of mother, affiliation with a religious community, an interest in extra-curricular activities, and positive peer relations, including having at least one close friend. Individuals who were able to access these protective resources were identified as resilient, whereas those who were unable to access protective resources were unable to overcome their significant challenges.

Werner and Smith's (2001) study provides a more holistic perspective on risk and resiliency theory, indicating that not only do resilient children adjust well, but also that a number of diverse factors are associated with positive adjustment. Findings of those studies cited in the above discussion formed the basis of the emergence of risk and resiliency theory. As risk and resiliency research expanded, theoretical models were developed.
Models of Resiliency

Garmezy et al. (1984) present three models of resiliency: the challenge model, the protective-interactive model, and the compensatory model. The compensatory model was the model used in Werner and Smith's (2001) investigation, and is the focus of the present study. Before examining the compensatory model, however, it is necessary to summarize how the challenge and protective-interactive models work, in order to clarify why the protective model is the model that best fits the design of the present study.

Challenge Model of Resiliency

The challenge model illustrates that risk factors have a direct influence on the outcome. As long as stress does not exceed a child's threshold, competence is promoted. If the amount of stress has exceeded an individual's threshold, a negative outcome will be produced. This model does not consider the influence of protective variables such as positive temperament and positive peer relations that may contribute to the child's competence. These factors are, however, considered in the protective interactive models and compensatory model.

Protective Interactive Models of Resiliency

These protective models are interactive in that protective factors may potentially interact with each other or with risk factors, and offset the negative effects of risk (see Luthar, 1993, for complete details of each model). In other words, the protective factors act as moderators that buffer the negative effects of the risk variable(s). For instance, peer support may buffer the negative effects of unstable family relations, and reduce delinquency. This approach has produced a number of problems for researchers (e.g., Zimmerman et al.; Hawkins, Catalano, & Miller, 1992). For instance, as there are no criteria for labelling a factor as risk or protective, it is unclear as to whether a risk variable is interacting with a protective variable, or whether a protective variable is interacting with a protective variable. As well, only longitudinal studies enable researchers to draw causal conclusions about which variable is the moderator variable.
In other words, if several risk and protective variables are identified, and more than one outcome is produced, it is not possible to identify which relation the protective variable is moderating. Another problem is that the increase in variance as a result of the interaction between variables has frequently been very small, possibly due to small sample size, or a low-risk sample (Zimmerman & Arunkumar, 1994). The difficulties frequently associated with the interactive models have led researchers to begin favouring the simpler compensatory model.

Compensatory Model of Resiliency

The compensatory model is similar to the challenge model in that risk factors have a direct effect on the outcome (see Figure 1). In this model, however, a compensatory variable is also present. The compensatory model suggests that individuals are able to be resilient because compensatory factors are in place that can produce a positive outcome. A compensatory factor is a variable that counterbalances the negative effects of risk. Positive temperament is an example of a compensatory factor. If a child is exposed to multiple risk factors, having a positive temperament can counterbalance the negative effects of these risk factors and produce a very different result. If temperament is held constant, level of adjustment will change in relation to changes in risk factors. For instance, if a child’s home environment becomes increasingly unstable, adjustment will be affected accordingly (Garmezy et al. 1984).

![Figure 1. A conceptual illustration of the compensatory model of resiliency](Garmezy et al., 1984)
As illustrated in Figure 1, the risk factors and compensatory factors have a direct effect on the outcome. Competence is increased or decreased depending on the strength of the risk and compensatory variables. In other words, there are two independent variables (risk variables and compensatory variables) that affect the outcome. If the level of risk increases, while the strength of the compensatory variable remains constant, then the outcome will be negative. If the strength of the compensatory variables is high, while the level of risk decreases, then the outcome will be positive.

Werner and Smith's (2001) study of the Kauai children is an example of how the compensatory model works. The results of their study of a sample of at-risk children indicated that one out of every three children became well-adjusted adults because the strength of the compensatory variables (e.g., positive temperament, close bond with an adult) was greater than the strength of the risk variables (e.g., perinatal stress, learning problems). In other words, although all variables had a direct effect on adjustment, the compensatory variables were more predictive of adjustment than were the risk variables.

The compensatory model has also been called the protective effects model (Luthar, 1993) because it illustrates that the compensatory variables can protect the at-risk individual from maladjustment, as illustrated in Werner and Smith's (2001) study. Figure 2 illustrates the compensatory model. As can be seen, performance is higher when a compensatory factor is present than when a compensatory factor is absent; and, this is true at any level of risk.
As the present study is a cross-sectional study and does not include a large sample size, a compensatory model designed to examine the main effects of positive peer relations on psychological adjustment and school adjustment among a sample of adolescent newcomers, is most suitable. Specifically, the extent to which positive peer relations (compensatory variable) predicts positive psychological and school adjustment is investigated.

Dubow and Reid (1994) have delineated three categories of compensatory factors: (1) social-contextual factors, (2) individual factors, and (3) family-related factors. These categories are discussed in detail in the following sections. It is necessary to note that Dubow and Reid use the term protective instead of compensatory; therefore, in the discussions to follow, the term protective will be used.

**Categories of Protective Factors**

Dubow and Reid (1994) have identified three categories of protective factors that have been identified by researchers (e.g., Benard, 1992; Garmezy & Masten, 1991; Rutter, 1990) of resilience to protect children at-risk: (1) stable family relations, (2) positive individual factors, and (3) social-contextual resources. These categories are discussed in detail in the following sections.

![Performance vs Risk with Compensatory factors and No compensatory factors](image-url)
Stable Family Relations

According to researchers (e.g., Dubow and Reid, 1994; Garmezy & Masten, 1991), stable family relations are characterized by positive and authoritative parenting, a close parent-child bond, and a cohesive family unit. Parents are instrumental in enabling children to cope with stress, as long as they are stable, calm and positive role models for their child. When parents are unstable and start to panic, the child starts believing that everything is out of control and that no one can be trusted, and this can threaten the child's ability to build resilience.

Individual Factors

Another category of protective resources is individual factors. Examples include positive temperament, cognitive ability, and self-efficacy. For instance, difficult temperaments have been associated with problems in emotional adjustment of children whose parents were undergoing divorce (Tschann, Johnston, Kline, & Wallerstein, 1990); cognitive ability has been found to protect against the risk of developing behavioral or emotional disorder in children (Rae-Grant et al., 1989); and, self-efficacy has been associated with the development of social competence (Rutter, 1985).

Wyman, Cowen, Work, and Kerley (1993) assessed individual characteristics among a group of 136 urban inner-city 4th to 6th grade children, who had all experienced negative life events based on parents' responses on the Life Events Checklist (LEC; Work, Cowen, Parker, & Wyman, 1990). Wyman et al.'s study was inspired by Werner and Smith's (2001) longitudinal study of at-risk children of Kauai. Werner and Smith found that an important factor in the lives of the resilient children was the hope and belief that they could overcome the odds. Thus, the objective of Wyman et al.'s study was to examine further the role of future expectations in overcoming adversity. Future expectations of academic success and friendship were assessed using measures developed by Wyman et al. Adjustment was assessed via self-assessments of scholastic competence, social acceptance, behavioral conduct, global self-worth, anxiety, and
depression; and, a teacher assessment was utilized to examine school competent and problem behaviors.

Findings of Wyman et al.'s (1993) study indicated a strong association between future expectations and the following adjustment indicators: self-reported competence, self-reported anxiety and depression, teacher-reported school interest, teacher-reported socioemotional adjustment, and reading achievement scores. Moreover, in a follow-up study of similar children whose adjustment was assessed two and a half to three and a half years later, findings indicated that future expectations two and a half to three and a half years earlier predicted later adjustment, based on perceived competence, locus of control, school engagement, and socioemotional adjustment. This follow-up study provided evidence that a child's future expectations influences later adjustment.

A limitation of Wyman et al.'s (1993) study is that only one individual characteristic, namely future expectations, was investigated. Familial variables (e.g., stable family relations) and social-contextual variables (e.g., positive peer relations) were not considered in their study. However, these variables also serve a protective function.

**Social-Contextual Resources**

Social-contextual resources, according to Dubow and Reid (1994), include participation in extra-curricular activities, affiliation with a religious community, and the formation of positive peer relations. These support systems buffer the psychological effects of children’s negative life events, such as illness, family dysfunction, and relocation, that place them at risk for developing psychological and behavioral problems (Compas, Slavin, Wagner, & Vannatta, 1986). Compas et al. (1986) conducted a study to determine the relations among major life events, perceived social support, and adjustment among a sample of adolescents (ages 16 to 19). The participants filled out the Life Events Questionnaire (Newcomb, Huba, & Bentler, 1981), which required them to choose from a list which life events they have experienced, and rate the impact
of those events on a scale from −2 (very negative) to +2 (very positive). The Social Support Questionnaire (SSQ; Sarason, Levine, Basham, & Sarason, 1983) required respondents to list the people whom they could rely on for support and indicate their level of satisfaction with that support. The Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) required the respondents to rate the extent to which symptoms of depression, anxiety, obsessive-compulsive behavior, sensitivity, and somatization, for instance, had bothered them during the course of the week. Results indicated that adolescents who were less satisfied with the social support they received reported higher rates of physical and psychological dysfunction, thereby providing support for an association between social support and adjustment.

Although Compas et al.'s (1986) study provides valuable information about the importance of social support, it possesses several limitations. For instance, it is not known whether adolescents were most satisfied with peer social support, family social support, or other adult social support because no differentiation was made between these social support systems in the questionnaire. The researchers also did not identify who was relied on most for support, (e.g., relatives, non-related adults, peers). This question was asked in a more recent study conducted by Helsen et al. (2000). In their study, a sample of 2918 adolescents (ages 12 to 24) rated the degree of support they received from their guardians, and their best friends and other peers when they were experiencing problems in their relations with others. Results showed that girls reported receiving more support from their friends than did boys; whereas boys reported receiving greater support from their parents than did girls. However, for early and middle adolescent boys (ages 12 to 17), parental support decreased, while support from friends increased. This was also true for girls during early adolescence (ages 12 to 14). For girls, peer support decreased during middle adolescence (ages 16 to 18) and became more stable during later adolescence. From age 18 onwards, for boys and girls, parental and peer support reached
Helsen et al.'s (2000) findings suggest that a number of protective resources may be accessed simultaneously to promote positive adjustment. Researchers concur that compensatory factors may not necessarily protect in isolation (e.g., Gore & Eckenrode, 1994; Masten, Morison, & Pelligrini, 1985). Keeping this in mind, two questions to consider in the present study are: (1) To what extent do each of the aspects of peer relations (friendship network characteristics, peer group integration, and friendship quality) serve as compensatory variables in predicting psychological and school adjustment among adolescent newcomers, (2) Which aspects of peer relations are most significantly predictive of psychological and school adjustment among adolescent newcomers?

The adolescent newcomer population is described in detail in the following discussion. Evidence is provided from the extant research to support the identification of this population as at risk and a rationale for investigating adolescent newcomers is presented.

*Defining the Newcomer Population*

Although several studies have been conducted with adolescent newcomers, there is no consensus on the definition of the term "newcomers" (e.g., Goodenow & Espin, 1993; Horenczyk & Tatar, 1998). For the purposes of the present study, newcomers are defined as those individuals who have migrated from China within the past 5 years, and have settled in Canada either permanently or temporarily. There are several reasons why it is necessary to define newcomers in this way. The first reason relates to immigration law. According to the Citizenship and Immigration Canada on-line publication (2001), newcomers are either considered landed immigrants planning on applying for Canadian citizenship, or refugees who have been allowed to reside in Canada as a result of political instability in their country of
citizenship. Landed immigrants may be permanent residents, whereas refugees may be permanent or temporary residents. For the present study, visiting students (i.e., students from other countries allowed to attend school in Canada) are considered newcomers as well.

A second reason why newcomers are defined as residents of Canada for 5 years or less relates to educational programming. Newcomer students who speak a foreign language are eligible to receive specialized English as a Second Language (ESL) instruction. The Ministry of Education in British Columbia has placed a 5-year funding cap on this type of support (McCarthy & Foxx, 2001). This means that after 5 years, these students are mainstreamed for the full school day. In other words, after five years students are considered proficient or approaching proficiency in English and are no longer provided specialized English language support.

Similar to practitioners, researchers classify newcomers as individuals who have resided in any given country for approximately 5 years or less. Nevertheless, there are varying definitions across studies. For instance, Goodenow and Espin (1993) conducted a study about the identity development of female adolescent newcomers who had emigrated from Latin America, and were living in the United States for a minimum of 10 months to a maximum of 6 years. Horenczyk and Tatar (1998) explored the friendship expectations of adolescent newcomers from the former Soviet Union who resided in Israel for 1 to 4 years. As can be surmised, a single definition of newcomers has not yet been agreed upon, and researchers apply definitions that best suit the purposes of their study. For the present study, then, because the research-based definitions (e.g., Goodenow & Espin, 1993; Horenczyk & Tatar, 1998) are similar to the legislative definition, adolescent newcomers refer to those individuals from China who have resided in Canada for 5 years or less.
Adolescent Newcomers and Adjustment

Chinese adolescent newcomers can be identified as at-risk because they may potentially encounter problems while struggling to adjust to life in a new country (e.g., Bhattacharya, 2000; Eisikovits, 2000; Neto & Barros, 2000). In the following discussion, the adjustment difficulties that Chinese adolescent newcomers may face will be presented.

Adolescent newcomers face maturational issues, acculturation issues, social difficulties and language-related issues (e.g., Cole, 1998; Neto & Barros, 2000) as a result of relocating to a new country and being in a new environment. Beiser, Dion, Gotowiec, Hyman, and Vu (1995) in a review of the literature, identified inter-racial conflict, inter-generational conflict, and cultural changes, as being predictors of stress among immigrant and refugee children. For adolescents, relocation can be an especially stressful experience as was demonstrated in a study conducted by Cornille et al. (1983). Their findings provide evidence of the adjustment difficulties associated with relocation. The sample in the study was a group of pre-adolescent and adolescent students who had relocated to a new neighborhood and school. School counselors reported in a survey that the most common adjustment difficulty was being socially integrated and making friends, and this was especially difficult for children from minority cultural backgrounds. Other difficulties included becoming adjusted to new teachers and new expectations that put the adolescents at risk of academic failure. Although Cornille et al.’s study was not on newcomers in particular, it provides evidence that relocation can be associated with social and academic adjustment problems.

Neto and Barros (2000) conducted a study on the relocation of newcomers in particular. Their findings provide evidence that, for newcomers who speak languages other than English, adjustment can be very difficult. Adolescents between the ages of 14 and 19 who had emigrated from Portugal to Switzerland participated in the study. All questionnaires were compiled by an international group of researchers, and included items that were either
developed for a previous project on ethnocultural issues, or were selected and modified (if necessary) from existing scales. Participants completed a series of demographic questionnaires that requested information about their age, gender, place of birth, length of residence in Switzerland, ethnicity and occupation of parents. They also completed the Revised UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980), which was shortened and translated into Portuguese (Neto, 1992). Psychological adjustment was measured using selected items from pre-existing scales that measured depression, anxiety and psychosomatic symptoms. Findings of the study revealed that the most important predictor of loneliness was majority language proficiency. More specifically, participants who spoke the majority language proficiently reported significantly less loneliness than adolescents who did not speak the majority language. Participants who reported higher levels of psychological adjustment were also less lonely.

Although the findings of Neto and Barros' (2000) study provides some evidence regarding the issues associated with migration, a number of shortcomings have been noted. First, because the questionnaires were developed for a different research project, and were re-administered for this project, the validity and reliability of the questionnaires is called into question. In other words, the arbitrary choice of items from existing questionnaires casts doubt on the validity of the findings. Such issues point to the need for more research on adolescent newcomers using reliable and valid measures.

Instead of utilizing questionnaires, Bhattacharya (2000) collected data through face-to-face interviews with a group of children and adolescents (ages 6 to 17) who had immigrated to the United States from South Asia. All were newcomers who had resided in the United States for 6 months to 5 years, and all were immigrants. Students were interviewed about their current performance in school, proficiency in English, and level of support and encouragement received from teachers. Parents were also interviewed in order to corroborate the children's information.
Findings revealed that 92% of children and adolescents had poor academic performance. Limited English language skills contributed to lack of participation in classroom activities and a lack of peer group integration. However, students were motivated to learn English quickly so that they could be more successful. Although this study reveals that school adjustment and peer group integration can be difficult for non-English speaking immigrants, the information provided is very minimal. The focus of the interviews was on language-related issues, and academic-related issues. Further investigation is necessary before conclusions can be drawn about school adjustment, and nature and quality of peer relations. The present investigation was intended to provide further insight into these issues. Similar to previous studies (e.g., Bhattacharya, 2000; Florsheim, 1997; Neto & Barros, 2000), the sample in the present investigation included adolescent newcomers from non-English speaking countries.

Taken together, the evidence provided in the above discussion suggests that adolescent newcomers of minority cultural backgrounds may experience psychological, social, and school adjustment problems. As demonstrated, however, the focus of studies on adolescent newcomers has been on language-related issues (e.g., Bhattacharya, 2000; Florsheim, 1997; Neto & Barros, 2000). Few studies have focused on the peer relations of this potentially at risk group (e.g., Hartup, 1993; Kupersmidt, Buchele, Voegler, & Sedikides, 1996). The present study examines the role of peer relations, from a risk and resiliency perspective, as a compensatory variable that predicts positive adjustment among a sample of newcomers. In the discussions to follow, dimensions of peer relations will be delineated and the significance of peer relations during adolescence are identified. Following these discussions, research on the association between peer relations and adjustment among adolescents at-risk are reviewed. Through the following series of discussions, the rationale for investigating peer relations of adolescent newcomers will become clear.
Adolescent Peer Relations

Peers are individuals who are of about the same age or maturity level (Santrock, 1998), and peer networks include all the peers that are affiliated with the individual (e.g., Connolly, 1989; Kupersmidt et al., 1996). Researchers have delineated different dimensions of peer relations: crowds (Brown, 1990), peer groups (Hayden Thomson, 1989), and friendship networks (Hartup, 1993). Although some researchers have not distinguished between different dimensions of peer relations (e.g., Helsen et al., 1999; Munsch & Blyth, 1993), it is necessary to make these distinctions because each dimension has its own unique characteristics. The following dimensions were examined in the present study: (1) friendship networks, which during adolescence includes all those dyadic relationships which are committed, voluntary and reciprocal in nature, and in which both adolescents have equal control (Birch & Ladd, 1996; Hartup, 1993); (2) peer groups, which is a group of peers who share common interests and activities (Hayden Thomson, 1989), and (3) best friendships, which can be distinguished from close and general friendships by its high level of "mutual attraction" (Hartup, p. 4). Much of the research on friendships, peer groups, and peer relations in general, has been conducted with adolescents because it is during adolescence that peers play a particularly critical role. According to Sullivan (1953), during adolescence, peer relations influence adjustment in adulthood and prepare adolescents for developing adult relations. Following is a discussion of the critical role peers play during adolescence.

Model of Peer Relations

This discussion will be based on a model constructed by Rubin et al. (1997) who argue that peer relations contain interactional, relational, and group properties. As the child matures, the interactional, relational, and group properties, become increasingly more complex and meaningful as he or she approaches adolescence. Interactional changes refer to the frequency
and types of behaviors that occur; relational changes refer to changes in quality of peer
relations or patterns of involvement in peer relations; and, group changes refer to changes in
formations of cliques and crowds. By examining these interactional, relational and group
changes, the rationale for investigating peer relations of adolescent newcomers will become
increasingly clear.

At the infancy and toddler stages, peer interaction, and peer relations are minimal in
quantity and complexity because babies spend most of their time interacting with parents (Rubin
et al., 1997). Between two and five years of age, the amount of time spent with peers
increases, and children begin to engage in play behavior alongside their peers. Interaction with
peers is still minimal, however, as play is more parallel than interactive. As the child
approaches the preschool years, play becomes more interactive, involving negotiation, approval
and affection. This is indicative of the increasing complexity and meaningfulness of peer
relations, and is the first sign of friendship formation. During this stage, parents and guardians
continue to manage and closely monitor the peer interactions of their children (e.g., Ladd &
Golter, 1988; Ladd, Profet, & Hart, 1992) by making decisions regarding the activities in which
to enrol their children, for example, and by being physically present to supervise these
interactions. Because of the active role they play in their child’s life, parents are still largely
responsible for their child’s psychological and social well-being (Hart et al., 1998) and are
thereby the primary protective resource for their child (e.g., Ladd & Golter, 1988; Ladd & Parke,
1992). Parents continue to take an active role in the child’s social life during the middle
childhood and preadolescent years. However, peer relations become more significant, as the
quantity of peer interactions increases and the peer group expands (e.g., Larson & Richards,
1991; Parker & Gottman, 1989).

A more dramatic change in peer relations occurs as the individual approaches
adolescence (Sullivan, 1953). At this stage, Sullivan explains, individuals have a number of
social needs, including companionship, social acceptance, and intimacy. During adolescence, individuals establish close friendships in order to satisfy these social needs that cannot be met by parents or other adults. As a result, during adolescence, the intimacy of close friends grows, as they engage in more self-disclosure of private thoughts, feelings and experiences.

As adolescent friendships grow in intimacy, the individual gains important attributes that are necessary for later romantic relationships. For instance, the adolescent learns to work out problems with others, empathize with the feelings of others, and learns appropriate ways of self-disclosure. Because adolescents spend up to one-third of their waking hours with peers, which is more than double that spent with parents and other adults (Rubin et al., 1997), they have numerous opportunities to practice these skills (e.g., Rubin et al., 1997; Sullivan, 1953). Adolescents who have no close friends, however, are unable to build the skills necessary to establish positive adult relations (Sullivan, 1953). Moreover, peer relational difficulties (including lack of peer group integration and absence of close friends) can jeopardize an individual's social-emotional adjustment (e.g., Buhrmester, 1990; Bukowski, Hoza, & Boivin, 1994), bringing about feelings of loneliness (e.g., Boivin, Hymel, & Bukowski, 1995; Weiss, 1973), depression (e.g., Asher, Hymel, & Renshaw, 1984; Feldman, Rubenstein, & Rubin, 1988), and other problem behaviors (e.g., La Greca & Lopez, 1998; Parker & Asher, 1987).

A study conducted by Buhrmester (1990) illustrates how intimacy and positive peer relations are more central to positive adjustment in the adolescent years than in the pre-adolescent years. The sample consisted of 133 fifth and sixth graders (pre-adolescents), and 100 ninth graders (adolescents). Ratings of friendship intimacy were gathered via the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985). The Adolescent Interpersonal Competence Questionnaire (AICQ; Buhrmester, 1990) was utilized to assess social competence, and a new instrument was developed to assess social-emotional adjustment. The instrument measured sociability, hostility, anxiety, depression and self-esteem. Results
revealed much higher correlations between social competence and friendship intimacy in the adolescent sample than in the pre-adolescent sample. As well, a higher positive correlation between adjustment and intimacy was found among the adolescent group than among the pre-adolescent group. Buhrmester's (1990) findings provide support for the contention that friendship is more significant during adolescence than during preadolescence.

The above discussion illustrates that peer relations are more significant during adolescence than during previous stages of development because interactions and relations become more meaningful as the child matures. During adolescence, individuals begin to engage in more intimate and lengthy episodes of self-disclosure (Sullivan, 1953), thereby relying on their peers as protective resources. This occurs as the adolescent begins to spend more time with peers, and builds a wider friendship network and stable peer group from whom he or she can seek support and companionship (Berndt, 1996). It is clear from the above discussion that due to the protective role that peers begin to play during adolescence, it was valuable in the present study to explore peer relations of adolescent newcomers.

The discussions to follow are intended to provide an overview of research to date on dimensions of adolescent peer relations that were investigated in the present study, namely friendship networks, peer groups, and best friendships. Specifically, characteristics of the friendship network, peer group integration, and quality of best friendships were examined, as these areas are investigated in the present study. From the discussions, the relation between these dimensions of peer relations and adjustment will be clarified.

**Dimensions of Peer Relations**

As mentioned earlier, three dimensions of peer relations were examined in the present study: (1) friendship networks, (2) peer groups, and (3) best friendships. Specifically, characteristics of the friendship networks, peer group integration, and friendship quality were of
interest. The friendship network includes the best friend, close friends and good friends (Degirmencioglu, Urberg, Tolson, & Richard, 1998; Hartup, 1993). The peer group relation is based on companionship with a group of same-age peers who interact regularly with one another (Brown, 1990). The best friendship is an intimate relationship with a peer (Hartup, 1993). The peer group is a polyadic relation, whereas the best friendship is a dyadic relation. As illustrated by their definitions, because each relation constitutes a different type of relation (Brown, 1990), it is necessary to examine these dimensions separately.

Degirmencioglu et al. (1998) investigated why it is necessary to examine dimensions of peer relations separately. They explored both the stability of best friendships and the stability of peer groups of 408 sixth graders, 390 eighth graders and 386 tenth graders. In the fall, students were requested to make a list of their friends, and then in the spring, they were required to again make a list of their friends. The lists were then compared. Findings suggested that best friendships were more stable in eighth and tenth grades than were peer groups. Moreover, there was no correlation between the stability of close friendships and the stability of peer groups. In other words, the stability of close friendships was not dependent on the stability of the peer group. These findings, therefore, support the need to examine peer groups and best friendships independently. These dimensions were examined independently in the present study. Specifically, the nature of the friendship network, peer group integration, and quality of best friendships were investigated.

An overview of research that has already been carried out on each of these dimensions will be provided in the following discussion in order to illustrate how the present study fills a remaining gap in research that has covered these dimensions.

**Overview of Research on Peer Groups**

The peer group, which is a group of same-age companions, is a dimension of peer relations that has received little attention (Hartup, 1993). Hartup has speculated that this is
because "polyadic" relations are more difficult to study than dyadic relations, and because adolescents are more devoted to intimate relations than to non-intimate relations. Buhrmester (1996) has also stated that the notion of "hanging out" (i.e., companionship) has received much less attention in the literature than has intimacy. Theorists have been more interested in exploring functions of peer relations that change from childhood to adolescence, namely intimacy, than functions of peer relations that stay constant, namely "hanging out". However, like friendship dyads, peer groups also play a critical role during adolescence, as will be discussed (Hartup, 1993; Rook, 1984). It is, therefore, necessary to further investigate peer group relations, specifically peer group integration, as well as friendships.

According to Savin-Williams and Berndt (1990), "hanging out" is the most important and constant feature of social relations for children, adolescents, and adults. During adolescence, peer groups fulfil the important social need to "hang out". In other words, the role of the adolescent peer group is to provide companionship (Hayden Thomson, 1989). The absence of a peer group predicts social loneliness, according to Rook (1984). Social loneliness is characterized by feelings of boredom and seclusion as a result of isolation from peers (Weiss, 1973). Adolescents without a peer group to provide companionship are socially lonely. Social loneliness is the opposite of peer group integration. Peer group integration is a result of acceptance by a peer group, and refers to the feeling that one belongs to a peer group (Hayden Thomson, 1989). According to Hayden Thomson (1989), peer group integration is a relational variable. In contrast, a number of previous researchers have considered loneliness as an adjustment variable (e.g., Boivin et al., 1995; Chen et al., 2000; Neto & Barros, 2000). Keeping this in mind peer group integration, or social loneliness, is first examined as a peer relational variable. Specifically, the association of peer group integration to psychological and school adjustment was examined. It was later examined as an adjustment variable. In particular, the association of friendship quality to peer group integration was explored.
According to Kupersmidt et al. (1996), lack of peer group integration may predict school adjustment problems. However, few studies have focused on the association between peer group integration and school adjustment among adolescent newcomers, and further investigation is necessary. Portes (1999) examined the role of peer relations in school adjustment among a sample of 4,288 adolescent immigrants, representing 77 different nationalities. The purpose of his study was to examine the association of various individual, family, and peer-related variables to school adjustment among immigrant students (8th and 9th graders) in the United States. Data were collected via the Youth Adaptation and Growth Questionnaire (Portes & Zhou, 1993). School adjustment was measured via math and reading standardized scores. Results of hierarchical regression analyses revealed that those who encountered language problems and felt rejected by mainstream peer groups were the lowest achievers. In contrast, students who felt a sense of peer group integration and felt welcomed by the mainstream were the highest achievers. Portes concluded that peer group membership is a significant predictor of school adjustment.

Although Portes' (1999) study indicates that peer group integration may be a protective variable that predicts school adjustment, according to Kupersmidt et al. (1996), a number of school-related variables (e.g., school competent behaviors, school problem behaviors) need to be examined before conclusions are drawn about the relation between peer group integration and school adjustment. Keeping this in mind, the present study examines the relation between peer group integration, and school competent behaviors and school problem behaviors.

It is clear that further investigation in the area of peer group integration is necessary. Theorists have already highlighted the relation between loneliness and peer group integration. However, the relation of peer group integration to psychological and school adjustment still needs further investigation because it has rarely been examined with adolescent samples. The present study was intended to investigate this relation among a sample of adolescents at-risk,
specifically Chinese adolescent newcomers. As well, there is a need to investigate the role of friendship as well. The series of discussions to follow are intended to provide an overview of present friendship literature. As will be illustrated, to date, most empirical research on the role of friendship among adolescents has focused on White adolescents; thus the present study fills a gap in the extant research.

Overview of Research on Friendships

In the area of friendship, the majority of research has focused on three issues: having friends, identities of friends, and quality of friendship (e.g., Hartup, 1996; Munsch & Blyth, 1993). Research about having friends provides brief and quantitative information about the number of friends. The identities of one's friends provides information about their characteristics, and quality of friendships provides information about specific dimensions of friendships. The following discussion examines these three components in more detail, and demonstrates the significance of friendships as a protective mechanism.

A study by Schonert-Reichl (1995) examined the number of friends, identities of friends, and quality of friendships among a group of adolescents at risk. A sample of 31 adolescents with behavioral problems and a comparison group of 23 adolescents without behavioural problems listed their "good" friends, identified characteristics of their friends, and reported on the quality of their one very best friendship. Friendship quality of this best friendship was assessed using the Friendship Quality Questionnaire (FQQ; Parker & Asher, 1993), which includes six subscales. The subscales on the FQQ include: validation and caring, conflict resolution, conflict and betrayal, help and guidance, companionship and recreation, and intimate exchange. Friendship satisfaction and fulfilment was based on responses to two questions on a 5-point scale. These questions were: (1) "How is the friendship going?" (2) "How happy are you with this friendship?"
Results revealed that adolescents with behavioral problems listed fewer and older friends than adolescents without behavioral problems. Findings regarding the friendship networks indicated that adolescents with behavioral problems reported having fewer friends at the same school than did adolescents without behavioral problems, and boys reported having fewer friends in school than did girls. Regarding friendship satisfaction and friendship quality, for adolescents with behavioral difficulties, friendship satisfaction was positively correlated with companionship and recreation, help and guidance, and conflict resolution. For those without behavioral difficulties, friendship satisfaction was significantly and positively correlated with validation and caring, intimate exchange, and conflict resolution; and friendship satisfaction was significantly and negatively correlated with conflict and betrayal.

As well, findings revealed that, for adolescents with behavioral problems, validation and caring, help and guidance, and intimate exchange were correlated with friendship importance. For adolescents without behavioral problems, validation and caring, intimate exchange, and conflict resolution were correlated with friendship importance. For both groups, the six components of friendship accounted for almost half of the variance in friendship importance and at least half of the variance in friendship satisfaction. As well, adolescents with behavioral problems reported having closer friends than did adolescents without behavioral problems. Schonert-Reichl (1995) suggests that this could be because they had fewer protective resources at home (e.g., a stable family environment or a close bond with parents). As a result, they may depend more on their peers than on their parents for support. Yet, the quality of the relationship lacked protective characteristics associated with resilience. For instance, their friendships consisted of more conflict and betrayal, and less companionship and recreation. These features are necessary components of a healthy friendship that guard against at-risk behavior (Parker & Asher, 1993).

Although Schonert-Reichl's (1995) study provided important information about quantity
of friends, characteristics of friends, and quality of friendships of at-risk adolescents, a number of limitations and implications for future research exist. First of all, the small sample size presents limitations in terms of external validity of the study. Secondly, a question that remains unanswered was whether or not children with behavioral problems had close friends who also had behavioral problems. This question pertains to the issue of friendship selection, which was of interest in the present study, and will be discussed in detail in the following discussion. Moreover, students with behavioral problems were enrolled in self-contained classrooms and it was therefore unknown whether number of friends, friendship selection, and friendship quality would have been significantly different if they were enrolled in regular classrooms. The following discussions will examine the themes of friendship selection and friendship quality in more detail in order to provide further insight into these issues.

**Friendship selection.**

As outlined by Rubin et al. (1997), from the toddler years children begin to show signs of friendship selection. During the toddler years, selection is based on sociability and familiarity of the peer. During the adolescent years, however, choices are made based on similarities in age, interests, abilities, values, race, physical proximity and socio-economic status (e.g., Epstein, 1989; Hartup, 1993, 1996; Savin-Williams & Berndt, 1990). In other words, as children approach adolescence, they prefer friends with whom they have more in common.

According to Hartup (1993), during adolescence, it is not clear whether friends are chosen on the basis of similarities or whether they grow to be similar through time spent together. Research shows that both are true. For instance, Pawlby, Mills, Taylor, and Quinton (1997) mapped the friendships of fifty girls (ages 15 and 16) labeled at-risk due to conduct problems and unstable home environments. In interviews, the girls were asked to list their close friends and describe characteristics of each friend. Using the Peer Relationship Adolescent Interview Schedule (PRAISE), a new instrument designed by Pawlby et al., the investigators
also gained information about the girls’ past and current friendships. The friendships of the high-risk fifteen and sixteen year old girls were compared to the friendships of well-adjusted girls of the same age. Results showed that the high-risk girls were more likely than their well-adjusted female peers to nominate an older female friend as a best friend. Moreover, the friends they nominated were likely to be school dropouts or unemployed. Their well-adjusted peers, in contrast, were likely to nominate friends who attended school and were academically oriented. In addition, Pawlby et al.’s study revealed that girls with older friends were more likely than girls with same-age friends to be involved in smoking, alcohol and drug usage, and have a boyfriend who was involved in delinquent activity. It appears, then, that high-risk girls associated themselves with older high-risk peers, and well-adjusted girls associated themselves with well-adjusted peers.

Pawlby et al.’s (1997) findings are consistent with results in Schonert-Reichl’s (1995) study cited earlier. High-risk students in both studies were more likely than their well-adjusted peers to select friends who were not attending their school. As well, high-risk adolescents were more likely than well-adjusted peers to choose friends who were older and to nominate close friends of the opposite gender. The investigators did not, however, examine whether or not substance use preceded friendship selection or if friendship selection preceded substance use.

The findings of Pawlby et al.’s (1997) and Schonert-Reichl's (1997) study illustrate Hartup’s (1993) point that it is not always clear whether friends grow to be similar through the friendship or whether similarity forms the basis of friendship selection. Some researchers (e.g., Berndt & Perry, 1990; Hartup, 1993) have resolved that similarities between friends can both influence friendship selection and be influenced by the friendship. Berndt and Perry (1990) have suggested that in order to determine whether or not similarities precede or follow friendship formation, longitudinal studies are necessary in order to identify and compare characteristics of each friend before friendship selection and after friendship formation.
Although the issue of friendship selection is complex and debatable, as illustrated, a number of researchers have concurred that some similarities precede friendship formation because they are fixed variables that cannot be influenced by friends (e.g., Hallinan & Williams, 1989; Hartup, 1993). These include demographic similarities, such as age, gender, socio-economic status, and race.

Hallinan and Williams (1989) investigated the variables that influence friendship selection among a group of sophomore (middle adolescent) and senior (late adolescent) students from various racial backgrounds. From questionnaires given to African-American students and White students, the researchers obtained information about students' gender, race, academic performance, program, and extra-curricular activities. Adolescents were also required to name three friends who were in the same grade. School staff members provided information about programs, class size and racial composition of the school. Data analysis involved examining characteristics of friendship dyads and comparing the number of cross-race friendships that do exist to the possible number of cross-race friendships that do not exist. Results revealed that 15% of possible sophomore friendships and 12% of possible senior friendships would be interracial. However, less than 3% of friendships in each grade were actually interracial. In other words, less than 25% of all possible inter-racial friendships were actually interracial. The researchers found that even after controlling for confounding variables, including gender, program, academic performance and class size, students were more likely to select same-race friends than cross-race friends. Although these results support the argument that friends are selected on the basis of race, adolescents of only two racial backgrounds were sampled and compared. In other words, further investigation with a more diverse sample is necessary before forming any conclusions about race as selection criteria of adolescent friendship formation.
Similar to the above study, Boulton and Smith (1996) investigated children of two racial backgrounds. In their study, they investigated the friendship selection process of 8- to 10-year-olds from India, Pakistan, and Bangladesh. Based on photographs of children they did not know, children were required to indicate whom they would choose as a playmate. Children were also required to nominate three classmates that they liked the most and three that they liked the least. Results revealed that children preferred same-race classmates as playmates to other-race classmates. Moreover, other-race classmates were liked least by White children than by Asian children. However, the researchers did not investigate why they preferred same-race classmates. Perhaps the children thought same-race classmates spoke the same language, and other-race classmates did not. Another important question that needed to be investigated was whether or not children preferred playmates that were of their own cultural background. For instance, did Asian children prefer Asian children as playmates? These questions were not considered in their study.

A limitation of Boulton and Smith’s (1996) and Hallinan and Williams’ (1989) study is that race was the only variable considered. Other variables would also provide important information about friendship selection criteria, such as whether or not friends selected were of the same age, gender, and nationality (e.g., Hartup, 1993; Rubin et al., 1997). These additional variables were examined in the present study.

Rubin et al. (1997) argued that during adolescence, demographic variables are not the only predictors of friendship selection, and that preferences become increasingly more complex as children approach adolescence. Asher and Williams (1987), for example, have delineated six core questions that determine the criteria for friendship selection, rejection and neglect during adolescence. One question was, “Is the peer similar to me?” This question is consistent with Hartup’s (1993) argument, for instance, that adolescents choose friends who are similar to them (demographically and behaviorally). Another critical question is, “Is the peer fun to be
around?" A peer is likely to neglect peers who they perceive as boring. However, unless a peer intentionally withdraws from social interaction, this question does not preclude friendship formation. As well, when selecting friends, adolescents consider the values and attitudes of their peers. They ask, "Do we influence each other in ways that we like?" Again, this is related to the issue of similarity. For instance, an adolescent who goes to church on Sundays may make friends with another adolescent who goes to church on Sundays because they have the same values and beliefs and will mutually encourage each other to uphold these values and beliefs. They ask, "Is the peer trustworthy?" "Will the person support me in pursuing my goals?" And, "Does the peer promote my sense of self-worth?" Attributes such as trustworthiness, honesty, encouragement and support are important components of friendship during adolescence because adolescent friendships involve lengthy episodes of self-disclosure, and it is, therefore, critical to have friends who are trustworthy, supportive and encouraging (e.g., Rubin et al., 1997; Sullivan, 1953).

The issue of friendship selection is complex in that the predictors of friendship selection discussed above are interrelated in some way. For instance, if two peers have dissimilar recreational interests, they are likely to believe that the other is not fun to be around, thereby decreasing the likelihood of friendship formation. If a peer is trustworthy, they are likely to also be perceived as supportive and will be likely to promote the child's sense of self-worth. In this case, the peer is likely to be selected as a potential friend. Friendships that incorporate components of trustworthiness, supportiveness, and sense of self-worth are high in quality, and can be protective resources for adolescents at risk. The following discussion examines in more detail the correlation between friendship quality and adjustment. First, however, it is necessary to define friendship quality.
Friendship quality.

In an article by Berndt (1998), friendship quality is defined as the positive and negative features of a friendship. The term features is defined as the characteristics of the friendship, and includes intimacy, companionship, caring, conflict, and respect. Hartup (1996) has described three ways in which friendships differ in quality. First, friendships differ in the content of the activities and behaviors. For example, some of the behaviors are pro-social whereas others are anti-social. Second, they differ in constructiveness, which includes the strategies employed in the relationship, such as negotiation or conflict. Third, friendships differ in affective substrates, which includes the level of support offered by friends and the stability of the support. If relationships are affective, constructive and have healthy content, then they can be regarded as protective factors for the adolescent at-risk.

Theorists have had different opinions on how to measure friendship quality. For instance, Piaget (1965) theorized that friendships in which peers are equals are high in quality. Features of these friendships included mutual respect, cooperation and reciprocity. Sullivan (1953), in contrast, emphasized that intimacy was the central feature of friendships that were high in quality, and competition was the central feature of friendships that were low in quality. Neither of these theorists, however, tested their theories with adolescents, which was why further investigation was necessary in order to determine which features would be central to friendship quality.

Another shortcoming of these earlier theories of friendship quality was the emphasis on only positive features of friendship. In a recent study, Jones and Costin (1995) considered only the positive features of friendships in an assessment of friendship quality. In this study, sex differences in the friendship quality of preadolescents and adolescents were explored. The sample included 291 students (164 girls and 127 boys) in grades six, eight, or ten attending school in the southwestern United States. Friendship quality was measured using the peer
scale of the Inventory of Parent and Peer Attachments (Armsden & Greenberg, 1987), which included items about how much they perceive their friends to accept them and care for them. Eighth and tenth grade girls reported higher quality friendships than eighth and tenth grade boys. Gender differences in friendship quality were predicted by responses to the Communal Orientation Scale, which assesses the degree to which an individual responds to the needs of others, and the Exchange Orientation scale (Murstein & Azar, 1986; Murstein, Wadlin, & Bond, 1987), which measures one's belief that friendship is about an equal exchange. Girls had a higher communal orientation than exchange orientation and, therefore, reported that their friendships were higher in quality than boys who had a lower communal orientation and higher exchange orientation. The Bem Sex Role Inventory (BSRI; Galambos, Almeida & Peterson; 1990) assessed the extent to which individuals expressed their emotions and responded to others (feminine traits), or were strong-willed, firm and active (masculine traits). Girls reported more feminine traits and higher friendship quality, whereas boys reported more masculine traits and lower friendship quality.

As mentioned, the limitation of the above study was that the scale assessing friendship quality only included items assessing positive features, such as caring and acceptance. The scale did not include negative features of friendship quality, such as conflict. Results, therefore, were incomplete. The degree of friendship quality can be more accurately assessed if both positive and negative features are investigated (Berndt, 1996; Laursen, 1993). When interviewing children about features of their close friendships, Berndt (1996) found that both positive and negative features were described. Children have reported that their friendships consist of positive features of conflict resolution and positive features of cooperation (Laursen, 1993). A friendship that consists of a high number of negative features (e.g., conflict, dishonesty) is low in quality, whereas a friendship that consists of a high number of positive
features (e.g., validation, cooperation) is high in quality. He argued that when negative aspects of friendship are ignored, accurate assessments of friendship quality cannot be made.

Many studies have been conducted (e.g., Bukowski et al., 1998; Parker & Asher, 1993) in order to yield a more accurate and widely accepted definition of friendship quality that incorporates both positive and negative features of friendship. These studies have involved either asking children themselves to describe features in their best friendships (Berndt, 1986), or predefining these features and developing a scale that asks children to report on them (e.g., Aboud & Mendelson, 1998; Bukowski et al., 1998; Parker & Asher, 1993). Berndt (1998) assures that both methods are valid. Moreover, scales that measure friendship quality can differ in the positive and negative features considered.

Parker and Asher (1993), for example, have developed a Friendship Quality scale that incorporates both positive and negative features of friendships. Positive features in their scale were validation and caring, conflict resolution, help and guidance, companionship and recreation, and intimate exchange. Negative features assessed were conflict and betrayal. Because the scale is designed to assess both positive and negative features of friendship, it is a valid tool for measuring friendship quality. However, a more recent scale of friendship quality was developed by Bukowski et al. (1994). They designed a tool to measure the friendship quality of pre-adolescent and adolescent friendships. Positive features in the scale were companionship, help, closeness, and security; and the negative feature in the scale was conflict. These features were included in the scale because previous literature about friendship quality has shown these to be the most salient features of children’s and adolescent friendships. Moreover, results from interviews of children and adolescents revealed that companionship was important to both children and adolescents. Bukowski et al. posited that mutual help was an important feature because of the pervasiveness of bullying among children and adolescents. Security was defined in terms of mutual trust, and stability of the friendship over time despite
conflict that may arise in the duration of the friendship. Finally, closeness was defined by feelings of acceptance and validation, and strength of the attachment. According to Bukowski et al., these features were all necessary components of childhood and adolescent friendships, unlike Parker and Asher's (1993) scale, which identified features in only childhood friendships. Because the sample in the present study consisted of adolescents, the Friendship Quality Scale developed by Bukowski et al. was utilized.

Friendship quality scales have been used in recent studies in order to determine whether close friendships are high or low in friendship quality. For instance, a study conducted by Hussong (2000) compared both positive and negative features of friendships of boys and girls. The sample consisted of 230 boys and 221 girls attending two mid-Western high schools in a predominantly White farming and working-class community. The positive qualities of this same-gender best friendship were assessed using subscales from the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985). Self-disclosure, companionship, affection and loyalty subscales were used to measure these positive qualities. Negative qualities, specifically peer verbal and behavioral control within the friendship, were also assessed. Results of these self-reports revealed gender differences in dimensions of friendship quality. For boys, companionship was higher than reports of affection, loyalty and self-disclosure. Affection, loyalty and self-disclosure were more important for girls than for boys. Moreover, boys exerted more peer control within their friendships than did girls.

Hussong's (2000) study illustrates that features that are salient in one individual's friendship may not be salient in another individual's friendship. Salient features of boys' friendships are different from the salient features of girls' friendships, for example (e.g., Buhrmester, 1996; Hartup, 1993). Following is a discussion of these gender differences.
Friendship quality and gender differences.

Buhrmester (1996) explains that from a young age, girls and boys begin to choose same-gender friends and, consequently, gender norms determine the content of their friendships. As a result of gender differences in social needs, gender differences in salient friendship features have also emerged. Research has revealed that girls seek intimacy in their friendships, whereas boys seek companionship (e.g., Buhrmester & Carbery, 1992; Parker & Gottman, 1989).

Buhrmester and Carbery (1992) found gender differences in their study of the friendships of two hundred adolescents (ages 12 to 15). Participants were interviewed each day for five days about the content of their social interactions. For each interaction that lasted at least 10 minutes, participants were required to rate on a 7-point Likert-type scale the degree of self-disclosure and intimacy in the interaction. Girls reported more episodes of self-disclosure and intimacy than did boys, thereby providing evidence that girls have a greater need for emotional support than boys.

Similar findings emerged from a more recent study conducted by La Greca and Lopez (1998) of 249 10th- through 12th-grade students. Participants completed the Adolescent Interview (Berndt & Perry, 1986), which required them to rate on a 5-point scale the degree of intimacy and companionship in their three best friendships. Responses were then averaged for the three friendships. Again, as in Buhrmester and Carbery's (1992) study, girls reported higher levels of intimacy than did boys. Gender differences in companionship, however, did not reach statistical significance. It is clear from these studies that in both early and late adolescence, the need for intimacy is higher among girls than among boys.

Although it is clear that there are gender differences in friendship quality among normal adolescents, it is necessary to examine whether these differences exist among at-risk adolescents as well. Claes (1994) investigated gender differences among non-referred
adolescents and adolescents referred for psychiatric treatment. He examined the level of attachment and conflict using the Peer Attachment Inventory (Greenberg, Siegel, & Leitch, 1983), and the level of intimacy using a scale developed by Sharabany, Gershoni, and Hofman (1981). Because participants were French-speaking, all scales were translated into French using the back-translation method. Findings revealed consistent gender differences among adolescents in both groups (normal and referred). Girls reported higher levels of intimacy and attachment than did boys. Claes's study provides further evidence of gender differences in friendship quality among at-risk adolescents.

Given that the majority of studies have demonstrated gender differences in friendship quality (Buhrmester, 1996), for the present study, it was of interest to explore gender differences in friendship quality among Chinese adolescent newcomers. One question of interest in the present study was whether or not Chinese female adolescent newcomers would report greater closeness in their friendships than would Chinese male adolescent newcomers. Findings of research conducted by Way and Chen (2000) on African American, Latino, and Asian American adolescents from low-income families indicated that girls reported greater closeness in their friendships than did boys. In order to assess closeness of friendships, participants completed the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985), which required students to rate (on a 5-point scale) the following qualities of their closest friendship: affection, reliable alliance, intimacy, companionship, satisfaction, conflict, and antagonism. These findings were consistent with previous research findings on minority adolescents (e.g., DuBois & Hirsh, 1990; Hamm, 1994). However, most of these investigations have focused on friendships of African-Americans. Findings of the present study of the friendships of Chinese adolescent newcomers were therefore particularly significant given that there was scant research on the friendships of Chinese adolescents (Florsheim, 1997; Way & Chen, 2000). Specifically, the present study was intended to examine the relation of friendship quality to adjustment in
adolescent boys and adolescent girls who are newcomers from China. By the end of the following discussion, it will become increasingly clear why it is necessary to investigate the relation of friendship quality to adjustment of adolescent newcomers.

Friendship quality and adjustment.

Researchers have found that friendship quality is correlated with social, psychological and school adjustment (e.g., Berndt & Keefe, 1992; Feldman et al., 1988). In a study conducted by Berndt and Keefe (1993), for instance, with nearly three hundred seventh and eighth graders, participants described the positive and negative features of one to three close friendships. Adolescents who reported friendships that had a high number of positive features reported having higher scholastic competence, social acceptance, better behavioral conduct and higher global self-worth. Adolescents who reported that their friendships had more negative features reported lower social acceptance, lower behavioral conduct and lower global self-worth. As well, there was a high correlation between friendship quality, and school involvement and disruption based on self-reports and teacher ratings. Adolescents who reported more positive features were more highly involved, and adolescents who reported more negative features were less involved and more disruptive. It is important to recognize that no causal conclusions could be made about whether friendship quality promotes school, psychological and social adjustment, or vice versa because of the correlational nature of their study.

The above study elucidates the idea that peer relations can be a risk, or a protective factor. As well, Berndt and Keefe (1992) found that adolescents with friendships that were high in conflict were more disruptive and became less involved in school activities than adolescents with friendships that were high in intimacy and low in conflict.

Parker and Asher (1993) investigated the association between quality of best friendships and loneliness among 484 high, average and low-accepted children. Students attended one of five public elementary schools in the United States. The sample consisted of 73.2% white,
23.4% Black and 3.4% Asian or Hispanic. To measure friendship quality, Parker and Asher (1993) designed the Friendship Quality Questionnaire (FQQ). Loneliness was assessed using Asher and Wheeler's (1985) loneliness and social dissatisfaction questionnaire. Because this questionnaire contains items that were similar to items on the FQQ measure, Parker and Asher eliminated these overlapping items in a second “pure” measure that only assessed loneliness and social dissatisfaction. Results indicated that even after controlling for level of acceptance, gender, and the gender by acceptance interaction, the correlations between friendship qualities and loneliness reached statistical significance. Conflict and betrayal was positively correlated with loneliness; And, validation and caring, companionship and recreation, help and guidance, intimate exchange, and conflict resolution were negatively correlated with loneliness. A critical finding of this study is that the role of friendship in adjustment was not dependent on level of peer group integration. In other words, even after controlling for level of acceptance by peers, the correlation between friendship quality and loneliness reached statistical significance, thus providing evidence of the independent role that friendship quality plays in predicting adjustment. Incidentally, these findings also point to the need to examine friendship quality as a variable independent of other peer relational variables, as previously discussed.

Hodges et al. (1999) investigated how friendship quality was associated with school adjustment among 393 fourth and fifth graders, via teacher-reported problem behaviors and peer-reported bullying. Results showed that for children without a best friend, an increase in problem behavior was predicted by peer-reported bullying. In contrast, for children with a protective friend, an insignificant correlation was found between problem behaviors and bullying. These results suggest that having a supportive best friend may buffer the negative effects of peer victimization and lack of peer group integration.

Other researchers have also examined the relation between friendship quality and adjustment (e.g., Berndt & Keefe, 1992; Berndt & Miller, 1993; La Greca & Lopez, 1998). A
study conducted with young adolescents by La Greca and Lopez was intended to examine the relation between the quality of close friendships and social anxiety. The researchers hypothesized that those with higher levels of social anxiety would report lower levels of intimacy and support. Moreover, it was predicted that girls who were socially anxious would report less intimacy and support than would boys because intimacy and support are more important features for girls than for boys. Participants were 101 boys and 149 girls in tenth through twelfth grade living in the South-eastern United States, and were of middle-class socio-economic backgrounds. The sample consisted of 51.6% White, 31.6% Hispanic, 15.2% African-American, and 1.6% Asian. Social anxiety was measured via the Social Anxiety Scale for Adolescents (SAS-A; La Greca & Stone, 1993). Friendship quality was measured using the Adolescent Interview, modified from the Friendship Interview (Berndt & Perry, 1986). Results revealed that adolescents who reported high levels of social anxiety also reported low levels of intimacy and companionship. However, these results only reached statistical significance for girls. These results supported the hypothesis that girls who reported high levels of social anxiety would also report low friendship quality. These results suggest that friendship quality may be more strongly correlated with anxiety among girls than with anxiety among boys.

Similar to social anxiety, depression has been associated with friendship quality (Feldman et al., 1988). In a study by Feldman et al., a sample of 103 grade six students attending schools in the San Francisco Bay Area were recruited. Students were from middle socio-economic backgrounds from either intact or single parent families. The sample was composed of White (60%), Hispanic (13%), Asian (14%), Black (7%), or placed in a miscellaneous category (9%). Because participants were from middle socio-economic backgrounds, and predominantly White, findings were not generalizable to sixth graders from diverse ethnic backgrounds.
Despite sample limitations, Feldman et al.'s (1988) research provides insight into the relation between friendship quality and problem behaviors. In their study, friendship quality was measured by level of emotional support provided by friends. This was assessed via the Friendship Support Scale developed by Frankel (1986) and Rubenstein and Rubin (1987). Depression, measured via the Children's Depression Inventory (Kovacs, 1983) and restraint, measured via the Weinberger Adjustment Inventory, Short-Form (Weinberger, Feldman, and Ford, 1988) were the problem behaviors of interest. Items on the restraint scale measured the suppression of aggression, consideration of others, impulse control and personal responsibility. Results revealed that depression and restraint were highly correlated with level of support. More specifically, adolescents who reported high levels of depression also reported less loyalty, understanding and acceptance from friends. As well, adolescents experiencing family stresses related to lack of family cohesion and communication, reported lower levels of depression as long as friendships were high in quality. Results of an ANOVA revealed that adolescents who reported a high degree of restraint also reported a high degree of friendship quality. However, results of a hierarchical regression analysis in which family communication (specifically with the mother), cohesion and adaptability were statistically controlled, revealed that friendship quality did not predict restraint. Although boys reported less restraint than did girls, there were no gender differences in reports of friendship quality or depression. According to Feldman et al. (1988), gender differences in depression only emerge after the adolescent stage of development has begun. Feldman et al. therefore concluded that because their study focused on students in the transition period between pre-adolescence and adolescence, it is not surprising that gender differences did not emerge. Whether or not the study would yield different results if carried out with a sample of adolescents still needs to be investigated. The present investigation examined the relation between friendship quality and depression among
Chinese adolescents, thereby extending the research on these dimensions of peer relations and adjustment.

A more recent study conducted by Windle (1995) also provided evidence of the relation between friendship quality and adjustment. In his study, adjustment variables were delinquency and depression. The sample included 1,098 adolescents who provided self-reports of the quality of their friendships. Four subscales were used: Reciprocity of Relations, Overt Hostility, Covert Hostility, and Self-Disclosure. Results revealed a positive correlation between hostility (overt and covert) and delinquent activity, depression, and suicidal tendencies. A negative correlation was found between the Reciprocity of Relations subscale, and delinquency, depression and suicidal tendencies. These findings provide additional evidence of the correlation between friendship quality and adjustment among adolescents.

The results of the above studies were in accord, suggesting that close friendships that are high in quality serve as a protective factor for adolescents who are at-risk. In other words, the studies demonstrated that individuals with close friends who provided them with support and encouragement were likely to be better adjusted than individuals who did not receive support and encouragement.

Berndt (1999) suggested that adolescents with close friendships that are high in quality would be likely to have high self-esteem, good academic performance, and reduced anxiety, which are all characteristics of the resilient child. Buhrmester's (1990) findings from his study described earlier supported these claims. His study revealed that adolescents who reported close friendships and greater friendship quality reported less anxiety, depression and hostility than did their peers without close friends. Additional studies have shown that friendlessness and friendships that are of low quality are correlated with behavioral problems (e.g., Pawlby et al., 1997; Schonert-Reichl, 1995), loneliness (e.g., Asher et al., 1984; Parker & Asher, 1993), and depression (e.g., Asher et al., 1984; Feldman et al., 1988). Similar findings have emerged
from other studies that show a high correlation between friendship and social-emotional adjustment, (e.g., Hartup, 1993; Pawlby et al, 1997), indicating the value of close friendships of high quality in promoting positive adjustment among adolescents who are at-risk.

Although the research on friendship has provided convergent evidence that positive friendships are essential protective factors for adolescents at-risk, the majority of these studies have been carried out with adolescents from White middle class backgrounds (Savin-Williams & Berndt, 1990). Studies that have included participants of other racial backgrounds have been conducted in the United States and mainly include African-Americans as a comparison group (Savin-Williams & Berndt, 1990). Moreover, few studies have focused on the friendships of newcomers, a population that is at-risk due to potential difficulties that may arise while struggling to adjust to life in a new country (Florsheim, 1997). The present study provides much needed evidence about this particular at-risk group, and examines whether or not characteristics of the friendship network, peer group integration, and the quality of best friendships predict psychological and school adjustment among Chinese adolescent newcomers.

**Asian Adolescents and Peer Relations**

The goal of the present study was to respond to the lack of research regarding the role of peer relations among Asian adolescent newcomers. There are currently few studies on friendships among ethnic minority adolescents, (e.g., Spencer & Dornbusch, 1990; Way & Chen, 2000), as much of the extant friendship literature has focused on White adolescents. In Canada, however, a large population is of Asian background and, therefore, the research conducted thus far does not accurately reflect the experiences of the Canadian adolescent population. Moreover, much of the extant research has focused on the deficits associated with this population, and few studies highlight the protective factors (Spencer & Dornbusch, 1990).
Unlike previous studies, the aim of the present study was to highlight the protective role of peer relations among Asian newcomers, rather than focus on the shortcomings of this at-risk population.

Few studies have focused on adolescents of minority background, and few studies have focused on Chinese immigrants in particular (Florsheim, 1997). Studies conducted on the Chinese population have focused either on the adjustment of the American-born Chinese population (e.g., Florsheim, 1997; Way & Chen, 2000) or on Chinese adolescents living in China (e.g., Berndt & Zook, 1993; Chen, Li, Li, Li, Liu, 2000). For example, Chen et al. (2000) investigated the association of sociability (level of social participation) and pro-social functioning (quality of social interaction) to social, school, and psychological adjustment among a sample of sixth graders in Shanghai. Sociability and pro-social functioning were assessed via a peer assessment measure adapted from the Competence scale of the Revised Class Play (Masten et al., 1985); social competence was assessed via the Chinese version of the Self-Perception Profile for Children (Harter, 1985) and sociometric nominations that indicated peer status and peer preference; and, psychological adjustment was measured via the self-report measure of the Loneliness and Social Dissatisfaction scale (Asher et al., 1984) and the Childhood Depression Inventory (Kovacs, 1992). School adjustment was based on school records of involvement in student organizations and academic performance, and responses on the Teacher-Child Rating Scale (Hightower et al., 1986) of problem and competent behaviors. Data were initially collected in May and June (Time 1), and then again in May and June two years later (Time 2). Results of multiple regression analyses indicated that sociability at Time 1 positively predicted peer status, perceived social competence and teacher-rated externalizing problems, and negatively predicted internalizing problems and loneliness, above and beyond gender. As well, results suggest that prosocial behavior toward peers may serve a protective function for Chinese adolescents with social and psychological adjustment difficulties. The
present study was designed to provide further insight into the role of peer relations among Chinese adolescents who are at-risk.

A few studies have examined the association of peer relations to adjustment among Chinese adolescents (e.g., Cheung, Chau, Llu, & Suk, 2000; Pilgrim, Luo, Urberg, & Fang, 1999; Wong, 2001). For instance, Wong (2001), interviewed 32 delinquent adolescent males and 31 non-delinquent adolescent males in China about their family relations, school performance and peer relations. Results demonstrated that Chinese delinquent males associated themselves with delinquent peers outside of school, and Chinese non-delinquent males associated themselves with peers who regularly attended school. Chou (2000) investigated the association of friendship intimacy to deviant behavior among 289 Chinese adolescents between the ages of 16 and 19 years of age. Results of multiple regression analyses indicated that friendship intimacy was negatively correlated with deviant behavior. Although these studies provide evidence that peer relations play an important role in the adjustment of Chinese adolescents, they do not address the issue of adjustment among Chinese adolescent newcomers.

Florsheim (1997) conducted a study on the association of peer relations to adjustment among adolescent Chinese newcomers. Specifically, he investigated the psychological and social adjustment of adolescent Chinese immigrants in the United States. Participants were requested to complete questionnaires requesting demographic information, including their parents' education and employment and number of years living in the United States. As well, information about family relations was gathered, and the Offer Self-Image Questionnaire (OSIQ; Offer, Ostrov, & Howard, 1982) was administered, consisting of self-rating subscales measuring psychosocial adjustment in three specific areas – coping, peer relations and friendships (social self), and psychological well-being; and, finally, The Values Questionnaire (Schwartz, 1992) was administered, which examined how much the participants endorsed individual versus collective
values. All questionnaires were translated into Chinese by bilingual individuals who were familiar with the nuances of the Chinese language. To ensure reliability, they were backtranslated into English by another bilingual individual. Participants chose to complete either the English or Chinese version of the questionnaires.

Findings revealed that Chinese adolescent immigrants in the United States who preferred to speak English were less likely to associate with their Chinese-speaking peers (measured by scores on the social self subscale), and were more likely to experience peer relational and friendship problems than were adolescent immigrants who preferred to speak Chinese.

Limitations to Florsheim's (1997) study suggest the need for further research in the area of friendship and adjustment of Chinese immigrants. For instance, all data were derived from self-report measures, and alpha coefficients of the subscales were minimally acceptable, ranging from .57 to .72. These issues were addressed in the present study. That is, both teacher and self-reports were administered, and measures that had strong psychometric properties were utilized. Following is a more detailed review of research that has been conducted on adolescent newcomers.

The Role of Peer Relations in the Adjustment of Adolescent Newcomers

A study conducted by Portes (1999), cited earlier, examined support from peers as a predictor of academic achievement. Recall that the sample consisted of 4,288 immigrant youth in nine ethnic categories (Latin American, Cuban, Filipino, Mexican, Southeast Asian, Jamaican, Cuban, Haitian, and Other Asian). The Youth Adaptation and Growth Questionnaire (Portes & Zhou, 1993) was individually administered using an interview format, and included 100 questions regarding demographic, psychological and ethnic variables. Academic achievement was measured using math and reading standardized scores, and the English Proficiency Index
was used to measure language proficiency. Students also indicated the language they spoke in their daily lives, the language they preferred to use, and the number of friends they had who were of the same ethnic background.

Results revealed that academically low-achieving immigrants encountered language problems, lacked a support network of peers from the same cultural background, and felt socially isolated by their peers. Another limitation of the study was that although a number of variables were investigated, these results were not discussed in detail. The association between number of close friends and perceived isolation from peers was not discussed, and the association between depression (using four items found to be predictive of major depression from the Center for Epidemiological Studies Depression scale; Radloff, 1977) and perceived isolation from peers was also not discussed. The present investigation addresses these issues in the data analysis. Specifically, the association of peer group integration to depression is examined in the current study. As well, the association between number of close friends and peer group integration is examined. Although Portes' (1999) investigation provides limited evidence of the adjustment problems that adolescent newcomers face, it does provide evidence of the importance of having support from peers of the same ethnicity. Asian and Cuban children, for example, received support from peers of the same ethnicity, and performed better academically than Jamaican and Haitian children who did not receive support from peers of the same ethnicity. Portes concluded that an ethnic enclave (peers of the same ethnicity) served a protective function, providing both social support and academic-related support to its members. Individuals who did not have an ethnic enclave received no support and, therefore, were likely to feel rejected by their peers and, as a result, received no academic assistance or encouragement. In turn, this perceived discrimination and lack of peer support predicted at-risk behaviour among immigrants of particular ethnic groups.
Horenczyk and Tatar (1998) compared the friendship expectations of adolescent immigrants to the friendship expectations of their host peers (long-term residents). The association between their expectations and distress was examined. The sample consisted of 775 fifth and sixth graders (239 newcomers and 536 long-term residents), and 935 tenth and eleventh graders (371 newcomers and 564 long-term residents). Sixty percent of the sample were girls and forty percent of the sample were boys. Participants in both groups (newcomers and hosts) reported on how they expected their friends to behave. Specifically, they rated (on a 4-point scale) how much they would like a friend who helps them (help and assistance subscale), how much they would like a popular friend (status subscale), how much they would like a friend to be similar to them (similarity subscale), and how much they would like a friend who doesn't hurt them (avoidance of harm subscale). Once they had indicated their own expectations, they were requested to fill out the questionnaire again, but this time they were requested to indicate what they believed were the expectations of the other group. Participants also completed a 7-item questionnaire that measured the degree of social and school-related stress they were experiencing, and complete a measure of social distress. The questionnaires were translated into Hebrew and Russian. Results revealed that each group overestimated the importance of the dimension of help to the other group. As well, Pearson product-moment correlations revealed a high positive correlation between the friendship expectation scales and social distress scale for the whole sample. These correlations were higher among girls than among boys, and higher among early adolescent girls than among middle/late adolescent girls. These results reveal significant differences between girls and boys, newcomers and long-term residents, and early adolescents and late adolescents in their friendship perceptions. The present investigation provides additional evidence of gender differences in perceptions of peer relations. As well, the present study provides further insight into the role of peer relations in predicting psychological adjustment.
According to Horenczyk and Tatar (1998), their study had a critical limitation, which was that the results could be interpreted in two ways: first, the higher expectations of newcomers may have been a result of their need for friendships to be more secure and protective as they struggle to adjust to their new environment; second, the differences in expectations between the two groups may be a result of ethnic differences in how they view friendships. Further investigation would, therefore, be necessary in order to find out whether differences were influenced by adjustment as a result of being a newcomer, or adjustment as a result of cultural differences. In order to answer this question, Horenczyk and Tatar (1998) suggest carrying out longitudinal research and following the immigrants over several years. If changes occurred in friendship expectations, the results could perhaps be attributed to changes in adjustment. If changes did not occur, the results could perhaps be attributed to cultural differences. Another approach would be to sample only immigrants who have stayed in Israel for different lengths of time, and compare their perceptions. If results appear to be similar, perceptions could be attributed to being a newcomer. However, if results differed between cultural groups, then results could be attributed to cultural differences. One final possibility is to sample adolescents from similar cultural backgrounds. In this way, the intervening variable - culture - can be controlled, to some extent. The present study took a similar approach, and sampled only Chinese adolescent newcomers.

DuongTran (1996) controlled for cultural variables by sampling only Vietnamese adolescent refugees. Vietnamese adolescent refugees (19 boys and 19 girls) between the ages of 14 and 20 enrolled at a Vietnamese vicariate in Portland were sampled. Specifically, the objective of the study was to investigate the prevalence of depression among a sample of Vietnamese adolescents and investigate the association between depression and the following predictor variables: self-esteem, stressful life events associated with death of a family member or friend, academic performance, familial problems, perceived personal life failure, social
difficulties with peers, post-traumatic stress, acculturation, and financial stress. Participants were requested to complete a series of questionnaires in a 50-minute session. The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was utilized to measure depressive symptoms, the Oetting and Beauvais (1984) self-esteem measure adapted from the Rosenberg Self-Esteem scale was utilized, and the Southeast Asian Adolescent Stressful Event Inventory (SAASEI; Dohrenwend & Dohrenwend, 1985; Zitzow, 1984) measuring stress associated with death, academic performance, family problems, perception of personal life failure, social difficulties with peers, post-traumatic stress, migration to a new country, and financial hardship, was also administered. Hierarchical regression analyses revealed that one of the most significant predictors of depression was peer-related stress. Although the findings provide evidence of the critical role of peers in promoting positive adjustment of adolescent newcomers, DuongTran recommended that further investigations be conducted with a larger sample size before drawing conclusions about the relation between peer relations and depression of this at-risk population. Keeping this in mind, the present study examines the role of peer relations among a sample of 122 adolescent newcomers. Instead of Vietnamese adolescents, the sample in the current study consisted of Chinese adolescents. By using different samples, and different assessment tools from previous studies, the present investigation extends the research on adolescent friendships.

The aim of the present study was to investigate further the association of peer relations to psychological and school adjustment among the Chinese adolescent newcomer population. Previous researchers (e.g., DuongTran, 1996; Fuligni, 1997) have recommended that further studies be conducted in the area, in order to fill the gap in the extant research. As illustrated in this discussion, positive peer relations can serve a protective function for newcomers struggling to adjust to life in a new country.
Research Questions

In the present study, peer relational variables of interest are friendship networks, peer groups, and best friendships. Specifically, characteristics of the friendship network, peer group integration, and friendship quality served as independent variables. The adjustment outcomes of interest were self-reported psychological adjustment (i.e., psychosomatic symptoms, depression, anxiety), and teacher-rated school adjustment (i.e., school competent behaviors, school problem behaviors). Relations among characteristics of the friendship network, peer group integration, friendship quality, and psychological and school adjustment were investigated. The following research questions were examined in the present study:

1. Will Chinese adolescent newcomers report having friends in the friendship network of the same gender, from the same country, and of similar age? This question was posed because a number of researchers in the area of peer relations concur that children report having friends who resemble themselves (e.g., Boulton & Smith, 1996; Hallinan & Williams, 1989; Hartup, 1993; Pawlby et al., 1997).

2. Will there be gender and age differences with regard to characteristics of the friendship network, peer group integration, friendship quality, psychological adjustment, and school adjustment among Chinese adolescent newcomers? The issue of gender and age differences in peer relations is of interest because previous findings from crosscultural research have reported gender and age differences in peer relations among Asian adolescent populations (e.g., Florsheim, 1997; Portes, 1999; Way & Chen, 2000).

3. The extant research on peer relations in risk and resiliency literature indicates that peer relations may serve as compensatory, or protective, variables that predict positive adjustment among adolescents (e.g., Dubow & Reid, 1993; Werner & Smith, 2001). To what extent do characteristics of the friendship network, friendship quality, and peer group integration
predict psychological adjustment (i.e., psychosomatic symptoms, anxiety, depression) and school adjustment (i.e., school competent behaviors, school problem behaviors) among Chinese adolescent newcomers?
Method

Participants

Participants were recruited from three secondary schools and sixteen elementary schools located in a large Western Canadian city. Schools in which participants were recruited were those identified as enrolling a high population of Chinese immigrant students. Chinese adolescents from sixth through twelfth grade classes who had been living in Canada for five years or less were eligible to participate. Principals in each of the schools identified students who met these criteria. A total of 126 students and 40 teachers participated in the study. Of the 126 participants, data of three students were excluded because their length of residency in Canada was greater than 5 years. Data of one student was excluded because he was in grade five. The final sample was composed of 122 students: 61 males and 61 females; 73 early adolescents (sixth and seventh grade elementary students) and 49 middle/late adolescents(eighth through twelfth grade secondary students). Age of the students ranged from 11.4 years to 19.8 years ($M = 13.81$ years). Of the 122 participants in the final sample, 111 reported being landed immigrants, 1 reported being a refugee, 1 reported being a visiting student, and 9 reported not knowing their residential status. The final sample included 122 students of Chinese ethnicity.

Measures

Demographic Questionnaire

A demographic questionnaire was administered to students in order to gather information about their age, grade level, gender, immigrant status (landed immigrant or refugee), length of residence in Canada, parents’ or guardians’ occupation and education, place of birth, religious affiliation, previous school(s) attended, ethnic origin, previous country of residence, and language(s) spoken at home and with friends.
Friendship Network Assessment

The Peer Relations Questionnaire (Connolly, 1989), an adapted version of the Social Relations Questionnaire (Blyth et al., 1982), was utilized to assess the characteristics of each participant’s friends. Students were asked to list all the friends that they considered to be important to them, and indicate whether the friend was a boy or girl. They also answered the following questions: Do you know this person well (yes or no)? Does this person go to your school (yes or no)? Is this person of the same religious background as you (yes or no)? Are you from the same country (yes or no)? Is this person a relative (yes or no)? How old is this person? Which country does this person live in? Is this person a really close friend (yes or no)? Do you see and do things together after school and on weekends (yes or no)?

Best Friendship Assessment

Following the work of Parker and Asher (1996), from the list of friends that participants included in the Friendship Network assessment, they were to choose which friend they considered to be their best friend, and rate the importance of this best friendship on a scale of 1 (Not at all important) to 5 (Very important).

Peer Group Integration

Students completed the Relational Provisional Loneliness Questionnaire (RPLQ; Hayden Thomson, 1989). The RPLQ consists of four subscales: family personal-intimacy, family group-integration, peer personal-intimacy, peer group integration. For the purposes of the present study, only the peer group integration subscale was utilized. This subscale contains seven items measuring extent to which the individual feels that they belong to a peer group. Examples include: “I feel part of a group of friends that do things together”, “I have a lot in common with other children”, “I feel that I usually fit in with other children around me”. The reliability of the measure has been tested among children and adolescents (Hayden Thomson, 1989), and the internal consistency of the peer group integration subscale was found to be
adequate in the original sample (Cronbach's alpha = .87) and in the replication sample (Cronbach's alpha = .82). Test-retest reliability for the peer group integration subscale was .79, indicating that scores were fairly stable. In addition, the homogeneity of the items in the subscale reflects the convergent and discriminant validity of the peer group integration subscale. In the present study, the internal consistency, as assessed via Cronbach's alpha, was .87.

**Friendship Quality**

The Friendship Quality Questionnaire (FQQ; Bukowski et al., 1994) was utilized to assess the quality of each participant's best friendship. This measure has been specifically designed for children and early adolescents, and contains five subscales representing the most salient features of adolescent friendships – companionship (e.g., "My friend and I spend all our free time together"), conflict (e.g., "I can get into fights with my friend"), help (e.g., "If I forgot my lunch or needed a little money my friend would loan it to me"), security (e.g., "If I have a problem at school or at home, I can talk to my friend about it"), and closeness (e.g., "I feel happy when I am with my friend"). Participants indicated how true each statement was about their best friendship the way it is now, on a scale of 1 (Not at all true) to 5 (Really true). In the study by Bukowski et al., internal consistency within each subscale was found to be high, ranging from .71 to .86. Support for the validity of the FQQ was demonstrated by Bukowski et al. (1994), with higher ratings for reciprocal and stable friendships than for non-reciprocal and unstable friendships. In the present study, internal reliability (Cronbach's alpha) was found to be adequate: Total Scale = .90; Companionship = .69; Conflict = .72; Help = .90; Security = .69; Closeness = .83.

**Psychological Adjustment**

To assess psychological adjustment, the International Comparative Study of Ethnocultural Youth questionnaire of psychological symptoms (ICSEY; Claes, 2000) was
utilized. This scale was constructed for use with adolescent immigrants, and has been used with adolescent Chinese immigrants. Three subscales were developed: anxiety, depression and psychosomatic symptoms. Each subscale contains five items. Items were chosen from the following existing scales: Hopkins Symptom Checklist (HSCL-25; Mollica, Wyshak, deMarneffe, Khuon, & Lavelle, 1987), Vietnamese-Language Depression Rating Scale (VDS; Kinze et al., 1982), Revised Children's Manifest Anxiety Scale (RCMAS; Reynolds & Richmond, 1985), Children's Depression Inventory (CDI; Kovacs, 1980/81), Health-related questions (Beiser & Flemming, 1986), and Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The internal consistency of the scale was found to be high (Cronbach's alpha = .90). In the present study, the internal reliability, as assessed by Cronbach's alpha, was .90.

Teacher Report of School Adjustment

To measure teacher-rated problem behaviors and school competencies, the Teacher-Child Rating Scale (T-CRS; Hightower et al., 1986), was completed by the teachers of students participating in the study. The following problem behaviors were assessed: acting out (e.g., disruptive in class), shyness-anxiety (e.g., shy, timid) and learning problems (e.g., poorly motivated to achieve). The following competence behaviors were assessed: frustration tolerance (e.g., accepts imposed limits), assertive social skills (e.g., comfortable as a leader), and task orientation (e.g., well-organized). For each item, teachers rate their students' behaviors on a scale from 1 (lowest degree of problem or competent behavior) to 5 (highest degree of problem or competent behavior). In Hightower et al.'s (1986) study, reliability coefficients for each subscale ranged from .85 to .95, and test-retest reliability ranged from .61 to .90. In addition, intercorrelations between subscales ranged between .22 and -.85. Validity is also reported to be high, showing differences between well-adjusted and poorly adjusted students (Hightower et al., 1986). In the present study, Cronbach's alpha was .92 for the total score of problem behaviors, and .91 for total score of competent behaviors.
Procedure

Initially, an introductory letter and consent form was mailed to the principal of each school. The letter outlined the objectives, procedures and implications of the study. It also informed the administrator that all data would be kept confidential and that only participants and the researcher would have access to the information. After consent had been obtained from the principal, the researcher introduced the study to the teachers.

After administrators and teachers were introduced to the study individually, students identified by administrators and teachers as eligible participants were informed about the study and given parent/guardian consent forms. Information was orally translated into Mandarin and Cantonese by a research assistant or fellow student. Students were informed that researchers would only be able to identify questionnaires by a student number assigned by the researcher, and that no student would be identified by name. Students were told that their data would be confidential and only the researchers would have access to the information. Students who brought back consent forms were entered into a draw for one of five A & B Sound gift certificates valued at $15 each. The draw took place after all data had been collected.

Students spent one class period (40 minutes) completing the questionnaires in a separate room in the school in which they were enrolled. Groups of no more than 15 students completed the questionnaires in the same classroom at the same time. Before beginning, the researcher instructed students on how to complete the questionnaire and read the Likert-type scales. A research assistant or student translated instructions for non-English speaking participants. All questionnaires were written in English and translated into complex Chinese and simple Chinese using a back-translation method. This method of back-translation is consistent with other research in the area of friendship (e.g., Claes, 1994; Portes, 1999) and has been
used in studies of immigrant adolescents (Florsheim, 1997). Participants had the option of completing questionnaires in either English or Chinese.

In order to avoid anxiety, students were also informed that there are no right or wrong answers and that no one except the researchers would have access to the information. Students were also requested to place their name on the identification tag placed inside the envelope, and give the tag to the researcher. To maintain confidentiality, students were asked not to place their name on the questionnaire package. After completing the questionnaire package, students put them back in the envelope and placed them on the table for the researchers to collect.

Teachers completing the Teacher-Child Rating Scale (Hightower et al., 1986) were given two weeks to complete checklists on each child. When the checklists were complete, teachers either mailed them to the researcher, or asked the researcher (or research assistant) to pick them up when they were ready.
Results

The results of this study examining peer relations and adjustment among Chinese adolescent newcomers are presented in five sections. The first section presents analyses regarding the characteristics of the friendship networks of Chinese adolescents. In the second section, age and gender differences with respect to dimensions of peer relations (i.e., friendship network, peer group integration, friendship quality), psychological adjustment (i.e., psychosomatic symptoms, anxiety, depression), and school adjustment (i.e., teacher-rated competent and problem behaviors) are considered. The third section presents the intercorrelations among all the measures. The fourth section presents findings regarding the association of peer relational variables to psychological and school adjustment. The final section of the results presents findings regarding the association of friendship quality to peer group integration.

Characteristics of Friends

In the present investigation, it was hypothesized that there would be demographic (e.g., gender, age, ethnic background) similarities between Chinese adolescent newcomers and the friends in their friendship networks. For purposes of the present study, friends were classified as similar age if they were reported to be the same age, one year older or one year younger than the participant. Regarding composition of the friendship network, Chinese adolescent newcomers reported that 65.7% of their friends were of similar age, 73% of their friends were from the same country, 84.8% of their friends were of the same gender, and 84.6% of their friends were considered close friends.

With regard to characteristics of their best friendship in particular, results of the present study indicated that 73.0% \((n = 89)\) of Chinese adolescent newcomers reported having a best friend of similar age, while 13.1% \((n = 16)\) reported having an older best friend, and 12.3% \((n = 15)\) reported having a younger best friend. Note that these percentages do not add up to 100% because two newcomers did not report the ages of their best friends. Regarding gender
similarities, 92.6% (n = 112) of Chinese adolescent newcomers reported having a best friend who was of the same gender and 7.4% (n = 9) reported having a best friend who was of a different gender. One participant did not report on the gender of his/her best friend. Regarding friends from the same country, 77.0% (n = 94) of newcomers reported having a best friend from the same country, and 21.3% (n = 26) of newcomers reported having a best friend from a different country. Two newcomers did not report on their best friend’s country of origin. Overall, findings indicate that Chinese adolescent newcomers and their friends were similar on several demographic dimensions. As well, most friends were considered close friends. These findings are in accord with previous research of similar populations (e.g., Florsheim, 1997; Portes, 1999).

**Gender and Age Differences Among Peer Relational and Adjustment Variables**

One of the goals of the present study was to explore gender and age (i.e., early vs. middle/late adolescent) differences on dimensions of peer relations (i.e., friendship network, peer group, best friendship) and adjustment (i.e., psychological adjustment and school adjustment). Results of these analyses are presented in the following sections.

**Friendship Network**

The purpose of this section is to present gender and age differences regarding characteristics of the friendship network, (i.e., general friendships, close friendships, and best friendships). Characteristics that were considered in the present study were gender of friends, friends from the same country, age of friends, and number of close friends. Two questions were of interest: (1) Are there gender and age differences regarding the demographic similarities of the friendship network (i.e., number of same-gender friends, number of friends from the same country, number of similar-age friends)? (2) Are there gender and age differences regarding the
Regarding the present study, it was believed that the demographic similarities of interest (i.e., number of same-gender friends, number of friends from the same country, number of similar-age friends) would be highly correlated. As can be seen in Table 1, mean scores of demographic friendship network characteristics were highly correlated. According to Tabachnick and Fidell (1996), variables that are "correlated with one another but largely independent of other subsets of variables" (p. 635) may be combined into a single component in order to avoid multicollinearity, which is an issue that may pose difficulties in regression analyses (Pedhazur, 1982). In accord with Tabachnick and Fidell, a composite variable was created via the principal components factor analysis statistical technique. The eigenvalue for the single factor was 2.43, and accounted for 81.1% of the total variance. The new variable was labelled *number of similar friends*. Variables that were combined to create the number of similar friends composite included number of same-gender friends, number of friends from the same country, and number of similar-age friends. Gender and age differences with regard to demographic characteristics of the friendship network were investigated using this new

<table>
<thead>
<tr>
<th>Table 1</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of same-gender friends</td>
<td>-</td>
<td>.79***</td>
<td>.74***</td>
</tr>
<tr>
<td>Number of friends from same country</td>
<td>-</td>
<td></td>
<td>.62***</td>
</tr>
<tr>
<td>Number of same-age friends</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***p < .001.
composite variable. To investigate gender and age differences with regard to number of similar friends, a 2 (gender) X 2 (age: early vs. middle/late adolescence) analysis of variance (ANOVA) was conducted, with number of similar friends serving as the dependent variable.

Means, standard deviations, F statistics, and significance levels of each of the aspects of peer relations (i.e., friendship network characteristics, peer group integration, friendship quality) are presented in Table 2. With regard to number of similar friends in the friendship network, results revealed a nonsignificant main effect for gender, $F(1, 117) = 3.03, ns$; a nonsignificant main effect for age, $F(1, 117) = ns$, and a Gender X Age interaction, $F(1, 117) = 6.66, p < .05$. Specifically, during early adolescence, boys ($M = -.37, SD = .75$) reported having fewer similar friends than did girls ($M = .40, SD = 1.16$). In contrast, during middle/late adolescence, boys ($M = .09, SD = .92$) reported having more similar friends than did girls ($M = -.06, SD = 1.00$). A similar trend emerged with regard to number of close friends in the friendship network. Results of a 2 (gender) X 2 (age: early vs. middle/late adolescents) ANOVA revealed a nonsignificant main effect for gender, $F(1, 118) = 3.52, ns$; a nonsignificant main effect for age, $F(1, 118) = ns$; and a significant Gender X Age interaction, $F(1, 118) = 11.33, p < .01$. Specifically, during early adolescence, boys ($M = 5.31, SD = 4.03$) reported having fewer close friends than did girls ($M = 10.47, SD = 6.85$). During middle/late adolescence boys ($M = 8.32, SD = 4.75$) reported having more close friends than did girls ($M = 6.85, SD = 4.84$). A graphical illustration of this finding is presented in Appendix N.

In sum, the Gender X Age interaction indicated that during early adolescence, boys had fewer similar friends and fewer close friends than did girls. In contrast, during middle/late adolescence, boys reported having more similar friends and more close friends than did girls.

**Peer Group**

The purpose of this section is to report findings regarding gender and age differences regarding peer group integration. Results of a 2 (gender) X 2 (age: early vs. middle/late adolescents) ANOVA with peer group integration as the dependent variable yielded a significant
Table 2

Gender and Age Differences on Peer Relational Variables

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th></th>
<th>F</th>
<th>Age</th>
<th></th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td></td>
<td></td>
<td>M (SD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td></td>
<td>Early adolescents</td>
<td>Middle/Late adolescents</td>
<td></td>
</tr>
<tr>
<td>Friendship Network</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of similar friends</td>
<td>-.20 (.84)</td>
<td>.20 (1.10)</td>
<td>3.03</td>
<td>- .01 (1.03)</td>
<td>.01 (.96)</td>
<td>.00</td>
</tr>
<tr>
<td>Number of close friends</td>
<td>6.39 (4.51)</td>
<td>8.87 (6.37)</td>
<td>3.52</td>
<td>7.71 (4.81)</td>
<td>7.51 (4.81)</td>
<td>.10</td>
</tr>
<tr>
<td>Peer Group Integration</td>
<td>25.20 (5.51)</td>
<td>28.00 (4.89)</td>
<td>7.67***</td>
<td>26.42 (5.93)</td>
<td>26.86 (4.47)</td>
<td>.05</td>
</tr>
<tr>
<td>Friendship Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companionship</td>
<td>3.78 (.79)</td>
<td>3.89 (.90)</td>
<td>.93</td>
<td>3.95 (.78)</td>
<td>3.67 (.93)</td>
<td>3.35</td>
</tr>
<tr>
<td>Conflict</td>
<td>1.92 (.79)</td>
<td>1.64 (.68)</td>
<td>4.93*</td>
<td>1.83 (.82)</td>
<td>1.72 (.62)</td>
<td>.32</td>
</tr>
<tr>
<td>Help</td>
<td>3.82 (1.07)</td>
<td>4.30 (.87)</td>
<td>5.28*</td>
<td>3.96 (1.03)</td>
<td>4.21 (.95)</td>
<td>1.46</td>
</tr>
<tr>
<td>Security</td>
<td>3.70 (.86)</td>
<td>4.27 (.62)</td>
<td>15.42***</td>
<td>3.17 (.69)</td>
<td>3.17 (.91)</td>
<td>1.04</td>
</tr>
<tr>
<td>Closeness</td>
<td>4.06 (.83)</td>
<td>4.43 (.68)</td>
<td>6.13**</td>
<td>1.64 (.59)</td>
<td>1.73 (.74)</td>
<td>.26</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
main effect for gender, \( F(1, 118) = 7.67, p < .01 \); a nonsignificant main effect for age, \( F(1, 118) = .05, ns \); and a nonsignificant Gender X Age interaction, \( F(1, 118) = .24, ns \). As can be seen in Table 2, girls reported greater peer group integration than did boys.

Best Friendship

Characteristics of the best friendship.

Gender and age differences regarding characteristics of Chinese adolescent newcomers' best friendships were addressed next via a series of chi-square (\( \chi^2 \)) analyses. Results are presented in Table 3. Regarding gender differences, results revealed that more boys spoke English with their best friend \( \chi^2(1, N = 122) = 9.78, p < .01 \), than did girls, and more girls reported having a same-gender best friend \( \chi^2(1, N = 121) = 5.76, p < .05 \), than did boys. Regarding age differences, more early adolescents than middle/late adolescents spoke English with their best friend \( \chi^2(1, N = 122) = 10.86, p < .01 \). No other significant differences emerged.

Quality of the best friendship.

Gender and age differences in the friendship quality of Chinese adolescent newcomers were presented next. To determine whether or not the friendship quality of boys differed from the friendship quality of girls, a 2 (gender) X 2 (age: early vs. middle/late adolescents) multivariate analyses of variance (MANOVA) was conducted with gender and age as the independent variables, and the five subscales of the FQQ scale as dependent variables. Results of this analyses yielded a significant multivariate main effect for gender, \( F(5, 114) = 3.13, p < .05 \); a nonsignificant multivariate main effect for age (early vs. middle/late adolescence), \( F(5, 114) = 1.79, ns \); and a nonsignificant multivariate Gender X Age interaction, \( F(5, 114) = 1.63, ns \). As can be seen in Table 2, Follow-up univariate analyses revealed
Table 3

Chi-Square Analyses of Gender and Age Differences on Characteristics of Best Friend

<table>
<thead>
<tr>
<th>Friendship Characteristics</th>
<th>Gender M (SD)</th>
<th>Age M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys %yes</td>
<td>Girls %yes</td>
</tr>
<tr>
<td>English spoken with best friend</td>
<td>44.3</td>
<td>18.0</td>
</tr>
<tr>
<td>Best friend of the same gender</td>
<td>86.9</td>
<td>98.3</td>
</tr>
<tr>
<td>Best friend of Chinese ethnicity</td>
<td>71.7</td>
<td>85.0</td>
</tr>
<tr>
<td>Best friend of similar age</td>
<td>73.8</td>
<td>72.1</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01
gender differences for four of the five friendship quality variables. Specifically, boys reported higher rates of conflict, and lower levels of help, closeness and security in their friendships, than did girls. No significant gender or age differences were found with regard to companionship. These findings are similar to those of Parker and Asher (1993). In their study of 3rd- through 5th-grade children, girls reported higher rates of validation and caring, help and guidance, intimate exchange, and conflict resolution than did boys; and no significant differences were found regarding companionship and recreation.

Psychological Adjustment

Next, gender and age differences were examined regarding dimensions of psychological adjustment (i.e., psychosomatic symptoms, anxiety, and depression). For the purposes of the present study, dimensions of psychological adjustment were examined via a series of 2 (gender) X 2 (age: early vs. middle/late adolescents) ANOVAs. According to Huberty and Morris (1989), univariate analyses are appropriate when variables have been examined individually rather than collectively, and are conceptually distinct. Previous researchers have examined these dimensions of psychological adjustment separately (e.g., Cheng, 1998; Chiu, Feldman, & Rosenthal, 1992; Hesketh, Ding, & Jenkins, 2002; Leung & Poon, 2001; Xia & Qian, 2001). For the purposes of the present study, each dimension is considered conceptually distinct and therefore examined via a series of ANOVAs.

Table 4 presents the means, standard deviations, F statistics, and significance levels for each of the adjustment measures. With regard to psychosomatic symptoms, results of a 2 (gender) X 2 (age: early adolescents vs. middle/late adolescent) ANOVA yielded a nonsignificant main effect for gender, or $F(1, 118) = .25, ns$; a significant main effect for age, $F(1, 118) = 4.38, p < .05$; and a nonsignificant Gender X Age interaction, $F(1, 118) = ns$. As can be seen in Table 4, middle/late adolescents reported significantly higher rates of psychosomatic
<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th></th>
<th></th>
<th>Age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td></td>
<td></td>
<td>M (SD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
<td>Early</td>
<td>Middle/</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>adolescents</td>
<td>Late adolescents</td>
<td></td>
</tr>
<tr>
<td>Psychological Adjustment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychosomatic Symptoms</td>
<td>9.98 (3.03)</td>
<td>10.38 (3.26)</td>
<td>.25</td>
<td>9.68 (3.04)</td>
<td>10.92 (3.17)</td>
</tr>
<tr>
<td>Anxiety</td>
<td>12.79 (4.20)</td>
<td>13.30 (4.68)</td>
<td>.38</td>
<td>12.52 (4.59)</td>
<td>13.82 (4.12)</td>
</tr>
<tr>
<td>Depression</td>
<td>10.51 (3.99)</td>
<td>10.49 (4.06)</td>
<td>.01</td>
<td>10.25 (4.00)</td>
<td>10.88 (4.03)</td>
</tr>
<tr>
<td>School Adjustment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competencies</td>
<td>2.94 (0.70)</td>
<td>3.38 (0.78)</td>
<td>8.24**</td>
<td>3.17 (0.69)</td>
<td>3.17 (0.91)</td>
</tr>
<tr>
<td>Problem behaviors</td>
<td>1.87 (0.73)</td>
<td>1.48 (0.50)</td>
<td>14.10***</td>
<td>1.64 (0.59)</td>
<td>1.73 (0.74)</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
symptoms than did early adolescents. Regarding anxiety and depression, no significant gender or age differences emerged. As well, no significant interactions emerged.

**School Adjustment**

To determine gender and age differences on dimensions of school adjustment, a series of 2 (gender) X 2 (age: early vs. middle/late adolescent) ANOVAs on school competent behaviors and school problem behaviors were conducted. Results yielded a significant main effect for gender on school competent behaviors, $F (1, 110) = 8.24, p < .01$; a nonsignificant main effect for age, $F (1, 110) = .19, ns$; and a nonsignificant Gender X Age interaction, $F (1, 110) = .30, ns$. Regarding school problem behaviors, results yielded a significant main effect for gender, $F (1, 118) = 14.10, p < .001$; a nonsignificant main effect for age, $F (1, 118) = 1.22, ns$; and a nonsignificant Gender X Age interaction, $F (1, 118) = 1.59, ns$. Inspection of the means presented in Table 4 reveals that girls exhibited more school competent behaviors and fewer school problem behaviors than did boys.

In sum, regarding gender and age differences among peer relational and adjustment variables, some significant differences were found. Regarding peer relational variables, during early adolescence, boys reported having fewer demographically similar friends and more close friends than did girls; however, this trend was reversed during middle/late adolescence, when boys reported having more demographically similar friends and more close friends than did girls. As well, girls reported greater peer group integration than did boys. With respect to friendship quality, girls reported less conflict, more help, more security, and more closeness than did boys. Regarding adjustment outcomes, middle/late adolescents reported more psychosomatic symptoms than did early adolescents. As well, teacher reports of school adjustment indicated that girls exhibited more school competent behaviors and fewer school problem behaviors than did boys. Taken together, results indicate that significant gender differences emerged with
regard to peer relations and school adjustment; and significant age differences emerged with regard to psychosomatic symptoms of newcomers.

Interrelations Among Variables

Zero-order correlations among variables are reported in Table 5. The relations among peer relationships, psychological adjustment, and school adjustment are of particular interest for the present study. Peer group integration was significantly and positively correlated with school competent behaviors; and significantly and negatively correlated with problem behaviors, psychosomatic symptoms, depression, and anxiety. Regarding friendship quality, conflict was significantly and negatively associated with competent behaviors; and significantly and positively associated with problem behaviors and depression. Security was significantly and positively correlated with school competent behaviors, and significantly and negatively correlated with depression and school problem behaviors. Closeness was significantly and positively associated with competent behaviors, and significantly and negatively correlated with problem behaviors and depression.

In sum, peer group integration and friendship quality variables were correlated significantly with psychological and school adjustment outcomes. Dimensions of positive peer relations were correlated with positive adjustment, whereas negative dimensions of peer relations were correlated with negative adjustment.
Table 5

*Intercorrelations Among Peer Relational Variables, School Adjustment, and Psychological Adjustment*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Peer Group Integration</td>
<td>-</td>
<td>.28**</td>
<td>-.27**</td>
<td>.53***</td>
<td>.44***</td>
<td>.40***</td>
<td>.27**</td>
<td>-.17*</td>
<td>-.22**</td>
<td>-.37***</td>
<td>-.30***</td>
</tr>
<tr>
<td>2. Companionship</td>
<td>-</td>
<td>.00</td>
<td>.39***</td>
<td>.35***</td>
<td>.29***</td>
<td>.02</td>
<td>.04</td>
<td>-.08</td>
<td>-.06</td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>3. Conflict</td>
<td>-</td>
<td>-.36***</td>
<td>-.42***</td>
<td>-.38***</td>
<td>-.19*</td>
<td>.23**</td>
<td>.03</td>
<td>.11</td>
<td>.26**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Help</td>
<td>-</td>
<td>.65***</td>
<td>.62***</td>
<td>.16*</td>
<td>-.14</td>
<td>-.02</td>
<td>-.10</td>
<td>-.16*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Security</td>
<td>-</td>
<td>.69***</td>
<td>.26**</td>
<td>-.21*</td>
<td>.04</td>
<td>-.07</td>
<td>-.16*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Closeness</td>
<td>-</td>
<td>.19*</td>
<td>-.23**</td>
<td>.04</td>
<td>-.06</td>
<td>-.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Competent behaviors</td>
<td>-</td>
<td>-.73***</td>
<td>-.18*</td>
<td>-.16*</td>
<td>-.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Problem behaviors</td>
<td>-</td>
<td>.22**</td>
<td>.22*</td>
<td>.13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Psychosomatic symptoms</td>
<td>-</td>
<td>.70***</td>
<td>.71***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Anxiety</td>
<td>-</td>
<td>.76***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Depression</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.*
**Predicting Adjustment from Peer Relational Variables**

One goal of the present investigation was to determine the extent to which dimensions of peer relations predicted adjustment. To examine these relations, a series of hierarchical regressions were conducted. The hierarchical multiple regression procedure allows for the determination of the extent to which independent variables uniquely contribute to dependent variables (Tabachnick & Fidell, 1989). According to Luthar (1993), in a hierarchical regression analyses, "fixed" independent variables (e.g., gender, age) are entered first, and "environmental" independent variables, or changeable variables, are entered next. That is, the less changeable independent variables precede the more changeable independent variables.

Results of the hierarchical regression analyses are presented in three sections. First, the unique contributions of friendship network characteristics to psychological adjustment and school adjustment are presented. Next, the unique contributions of peer group integration and friendship quality to psychological and school adjustment are presented. Finally, the unique contribution of friendship quality to peer group integration is presented.

**Predicting Adjustment from Characteristics of the Friendship Network**

A series of hierarchical regression analyses were employed in order to determine whether or not friendship network characteristics were independent predictors of psychological adjustment (i.e., psychosomatic symptoms, depression, anxiety) and school adjustment (i.e., school competent behaviors, school problem behaviors) after fixed variables (i.e., gender, age) were taken into account. Five separate hierarchical regressions were conducted with each of the five adjustment variables serving as dependent variables. In each regression, gender and age were entered in Step 1 in order to control for these demographic variables; and friendship network characteristics (i.e., number of similar friends, number of close friends) were entered in Step 2. Recall that a factor analysis indicated that number of same-gender friends, number of friends from the same country, and number of similar-age friends were highly correlated and...
represented the demographic similarities composite. Because they were highly correlated, they constituted one composite variable (i.e., number of similar friends).

As can be seen in Table 6, the hierarchical regression analyses predicting psychological adjustment revealed that number of similar friends did not contribute significantly to the variance in psychosomatic symptoms, anxiety, or depression, after gender and age were controlled statistically. With regard to school adjustment, Table 7 shows that friendship network characteristics contributed a significant amount of the variance to problem behaviors, after gender and age were controlled statistically. Inspection of the standardized Beta weights indicates that above and beyond gender and age, number of similar friends ($\beta = -.45, p < .01$) and number of close friends ($\beta = .43, p < .01$) each contributed significantly to the variance in problem behaviors. Overall, 10% of the variance in psychosomatic symptoms, 5% of the variance in anxiety, and 5% of the variance in depression was accounted for in the model. As well, 11% of the variance in school competent behaviors and 16% of the variance in problem behaviors was accounted for in the model.

In sum, results of the hierarchical regression on dimensions of psychological and school adjustment indicate that number of similar friends and number of close friends predicted school problem behaviors. In other words, newcomers who reported a greater number of demographically similar friends and a greater number of close friends exhibited fewer school problem behaviors than did newcomers who reported a lesser number of similar friends and close friends.

Predicting Adjustment from Friendship Quality and Peer Group Integration

A series of hierarchical regression analyses addressed the question of whether (a) friendship quality was an independent predictor of adjustment outcomes, above and beyond peer group integration, gender and age, and whether (b) peer group integration was an
### Table 6

**Predicting Psychological Adjustment from Friendship Network Characteristics: Regressions**

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Psychosomatic Symptoms</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
</tr>
<tr>
<td>Step 1: Demographics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.41</td>
<td>.55</td>
<td>.07</td>
</tr>
<tr>
<td>Age&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.30</td>
<td>.57</td>
<td>.21*</td>
</tr>
<tr>
<td>Step 2: Friendship Network</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of similar</td>
<td>.40</td>
<td>.52</td>
<td>.13**</td>
</tr>
<tr>
<td>Number of close</td>
<td>-.06</td>
<td>.09</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note: Standardized β weights are shown. <sup>a</sup>Gender was dummy coded such that 0 = boy, 1 = girl; <sup>b</sup>Age was dummy coded such that 0 = early adolescent, 1 = middle / late adolescent.

*p < .05. **p < .01.
Table 7

Predicting School Adjustment from Friendship Network Characteristics: Regressions

<table>
<thead>
<tr>
<th>Predictors</th>
<th>School Competencies</th>
<th>School Problem Behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Step 1: Demographics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.44</td>
<td>.14</td>
</tr>
<tr>
<td>Age&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.09</td>
<td>.15</td>
</tr>
<tr>
<td>Step 2: Friendship Network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of similar</td>
<td>.28</td>
<td>.17</td>
</tr>
<tr>
<td>Number of close</td>
<td>-.03</td>
<td>.03</td>
</tr>
</tbody>
</table>

Note: Standardized β weights are shown. <sup>a</sup>Gender was dummy coded such that 0 = boy, 1 = girl; <sup>b</sup>Age was dummy coded such that 0 = early adolescent, 1 = middle/late adolescent.

*p < .05. **p < .01.
independent predictor of adjustment outcomes, above and beyond friendship quality, gender, and age.

The relative contribution of friendship quality and peer group integration on each of the adjustment outcomes (i.e., psychosomatic symptoms, anxiety, depression, school competent behaviors, school problem behaviors) was examined in two ways. In Model 1, gender and age were entered in Step 1 in order to control for these fixed demographic variables. Peer group integration was entered in Step 2, and friendship quality (companionship, conflict, closeness, help, security) was entered as a block in Step 3 of the design. Model 1 examined the amount of variance in the dependent variables that is explained by friendship quality, above and beyond that explained by gender, age, and peer group integration. In Model 2, gender and age were entered in Step 1, friendship quality variables were entered as a block in Step 2, and peer group integration was entered in Step 3. In other words, Step 2 and Step 3 were reversed. Model 2 examined the amount of variance in the dependent variables that is explained by peer group integration, above and beyond friendship quality, gender, and age. Results of hierarchical regression analyses are presented in two sections. First, results for psychological adjustment are presented. Next, results for school adjustment are presented.

Predicting psychological adjustment from friendship quality and peer group integration.

Table 8 presents the hierarchical regression results of Model 1 and Model 2 for psychological adjustment variables (i.e., psychosomatic symptoms, anxiety, depression). As can be seen in Table 8, Model 1 indicates that peer group integration contributed a significant amount of variance to psychosomatic symptoms, anxiety, and depression, after gender and age were controlled statistically. Overall, 12% of the variance in psychosomatic symptoms, 19% of the variance in anxiety, and 15% of the variance in depression was accounted for in Model 1.

As seen in Model 2, friendship quality did not contribute a significant amount of variance to psychosomatic symptoms or anxiety after gender and age were statistically controlled. In
Table 8

Predictors of Psychological Adjustment: Regressions

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Psychosomatic Symptoms</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
</tr>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1: Demograph.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender^a</td>
<td>.29</td>
<td>.56</td>
<td>.05</td>
</tr>
<tr>
<td>Age^b</td>
<td>.12</td>
<td>.58</td>
<td>.19</td>
</tr>
<tr>
<td>Step 2: Peer Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration</td>
<td>-.15</td>
<td>.05</td>
<td>-.26</td>
</tr>
<tr>
<td>Step 3: Friendship Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companionship</td>
<td>-.15</td>
<td>.38</td>
<td>-.04</td>
</tr>
<tr>
<td>Conflict</td>
<td>.24</td>
<td>.42</td>
<td>.06</td>
</tr>
<tr>
<td>Help</td>
<td>.05</td>
<td>.42</td>
<td>.02</td>
</tr>
<tr>
<td>Security</td>
<td>.34</td>
<td>.56</td>
<td>.09</td>
</tr>
<tr>
<td>Closeness</td>
<td>.39</td>
<td>.52</td>
<td>.10</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1: Demograph.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender^a</td>
<td>.29</td>
<td>.56</td>
<td>.05</td>
</tr>
<tr>
<td>Age^b</td>
<td>.12</td>
<td>.58</td>
<td>.19</td>
</tr>
<tr>
<td>Step 2: Friendship Quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companionship</td>
<td>-.25</td>
<td>.39</td>
<td>-.07</td>
</tr>
<tr>
<td>Conflict</td>
<td>.32</td>
<td>.44</td>
<td>.08</td>
</tr>
<tr>
<td>Help</td>
<td>-.31</td>
<td>.41</td>
<td>-.10</td>
</tr>
<tr>
<td>Security</td>
<td>.25</td>
<td>.57</td>
<td>.06</td>
</tr>
<tr>
<td>Closeness</td>
<td>.35</td>
<td>.54</td>
<td>.09</td>
</tr>
<tr>
<td>Step 3: Peer Group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Integration</td>
<td>-.18</td>
<td>.06</td>
<td>-.31</td>
</tr>
</tbody>
</table>

Note: Standardized β weights are shown. ^aGender was dummy coded such that 0 = boy, 1 = girl; ^bAge was dummy coded such that 0 = early adolescent, 1 = middle/late adolescent.
*p < .05. **p < .01. ***p < .001
contrast, friendship quality, as a block, contributed a significant amount of variance to depression, after gender and age were controlled statistically. Inspection of the standardized Beta weights reveals that conflict was the strongest predictor of depression ($\beta = .26, p < .05$).

As well, Model 2 indicates that peer group integration contributed a significant amount of variance to psychosomatic symptoms, anxiety, and depression, after friendship quality, gender, and age were controlled statistically. Similar to Model 1, overall, 12% of the variance in psychosomatic symptoms, 19% of the variance in anxiety, and 15% of the variance in depression was accounted for in Model 2.

*Predicting school adjustment from friendship quality and peer group integration.*

Table 9 presents hierarchical regression results of Model 1 and Model 2 for school adjustment variables (i.e., school competent behaviors, school problem behaviors). Results of Model 1 showed that peer group integration contributed a significant amount of variance to school competent behaviors, after gender and age were controlled statistically. In contrast, peer group integration did not contribute a significant amount of variance to school problem behaviors. As well, friendship quality did not contribute a significant amount of variance to school competent behaviors or school problem behaviors after gender and age were controlled statistically. Overall, 15% of the variance in school competent behaviors and 16% of the variance in school problem behaviors was accounted for in Model 1. Results of Model 2 indicated that friendship quality as a block did not contribute a significant amount of variance to school competent behaviors or to school problem behaviors, after gender and age were controlled statistically. As well, peer group integration did not contribute a significant amount of variance to school competent behaviors and school problem behaviors after friendship quality, gender, and age were controlled statistically. Overall, 15% of the variance in school competencies and 16% of the variance in school problem behaviors was accounted for in Model 2.
Table 9

**Predictors of School Adjustment: Regressions**

| Predictors | School Competencies | | School Problem Behaviors | |
| --- | --- | --- | --- | --- | --- |
| | B | SE B | β | R² | ΔR² | B | SE B | β | R² | ΔR² |
| Predictors
| Model 1 | | | | | | | | | | |
| **Step 1: Demographics** | | | | | | | | | | |
| Gender | .45 | .14 | .29** | .08** | .08** | -41 | .11 | -31** | .10** | .10** |
| Age | -.07 | .15 | -.05 | | | .12 | .12 | .09 | | |
| **Step 2: Peer Group** | | | | | | | | | | |
| Integration | .03 | .01 | .21* | .13** | .04* | -.01 | .01 | -.10 | | .11** | .01 |
| **Step 3: Friendship Quality** | | | | | | | | | | |
| Companionship | -.07 | .10 | -.08 | | | .10 | .08 | .13 | | | |
| Conflict | -.07 | .11 | -.07 | | | .11 | .09 | .12 | | | |
| Help | -.06 | .11 | -.08 | | | .03 | .09 | .05 | | | |
| Security | .13 | .14 | .13 | | | -.01 | .11 | -.02 | | | |
| Closeness | .03 | .13 | .03 | | | -.13 | .11 | -.16 | | | |
| **Model 2** | | | | | | | | | | |
| **Step 1: Demographics** | | | | | | | | | | |
| Gender | .45 | .14 | .29** | .08** | .08** | -41 | .11 | -31** | .10** | .10** |
| Age | -.07 | .15 | -.05 | | | .12 | .12 | .09 | | |
| **Step 2: Friendship Quality** | | | | | | | | | | |
| Companionship | -.06 | .10 | -.07 | | | .12* | .04 | .16** | .06 | |
| Conflict | -.09 | .11 | .22 | | | .11 | .09 | .13 | | |
| Help | -.00 | .10 | -.07 | | | .01 | .08 | .02 | | |
| Security | .15 | .14 | .16 | | | -.02 | .11 | -.02 | | | |
| Closeness | .03 | .13 | .03 | | | -.14 | .11 | -.16 | | | |
| **Step 3: Peer Group** | | | | | | | | | | |
| Integration | .03 | .02 | .19 | .15* | .03 | -.01 | .01 | -.07 | .16** | .00 |

Note: Standardized β weights are shown. *Gender was dummy coded such that 0 = boy, 1 = girl; *Age was dummy coded such that 0 = early adolescent, 1 = middle / late adolescent. *p < .05. **p < .01.
In sum, results of the hierarchical regression analyses on dimensions of psychological and school adjustment revealed that peer group integration was a significant predictor of psychosomatic symptoms, anxiety, and depression, above and beyond friendship quality, gender and age. As well, peer group integration was a significant predictor of school competent behaviors, above and beyond gender and age. Conflict in a best friendship was a significant predictor of depression above and beyond gender and age.

Predicting Peer Group Integration from Friendship Quality

Hayden Thomson developed the peer group integration scale in order to evaluate social loneliness and a personal-intimacy subscale in order to evaluate emotional loneliness. Several previous researchers have considered loneliness as an adjustment variable (e.g., Boivin et al., 1995; Chen et al., 2000; Neto & Barros, 2000). Keeping this in mind, one of the goals of the present study was to examine peer group integration, or social loneliness, as an adjustment variable. Specifically, a goal of the present study was to determine whether or not friendship quality would predict peer group integration, above and beyond gender and age. To address this question, a hierarchical regression was conducted with peer group integration entered as the dependent variable, and friendship quality entered as the independent variable. Gender and age were entered in Step 1, and friendship quality as a block was entered in Step 2.

Table 10 presents results of the hierarchical regression for peer group integration. Results of the analysis indicated that friendship quality as a block contributed 25% of the variance to peer group integration, after gender and age were controlled statistically. Inspection of standardized Beta weights showed that the most significant predictor of peer group integration was help ($\beta = .38, p < .01$). Overall, 32% of the variance in peer group integration was accounted for in the model.
Table 10

Predicting Peer Group Integration from Friendship Quality: Regressions

<table>
<thead>
<tr>
<th>Predictors</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1: Demograph.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Genderᵃ</td>
<td>2.79</td>
<td>.95</td>
<td>.26**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ageᵇ</td>
<td>.20</td>
<td>.97</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2: Friendship Quality</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Companionship</td>
<td>.51</td>
<td>.57</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conflict</td>
<td>-.47</td>
<td>.63</td>
<td>-.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help</td>
<td>2.04</td>
<td>.60</td>
<td>.38**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security</td>
<td>.52</td>
<td>.83</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closeness</td>
<td>.21</td>
<td>.78</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Standardized β weights are shown. ᵃGender was dummy coded such that 0 = boy, 1 = girl; ᵇAge was dummy coded such that 0 = early adolescent, 1 = middle/late adolescent. *p < .05. **p < .01.
In sum, results of the hierarchical regression analyses on peer group integration showed that friendship quality was a significant predictor of peer group integration. Moreover, of the five dimensions of friendship quality, the dimension of help was the most significant predictor.
Discussion

The purpose of the present study was to examine the relation of peer relations to adjustment among Chinese adolescent newcomers from a risk and resiliency perspective. Recall that resiliency is defined as "positive adaptation" in the face of significant risk (Luthar et al., 2000). Risk factors are stressors that negatively affect psychological adjustment and behavioral development (Garmezy, 1983). Adolescent newcomers face challenges associated with relocation (Cole, 1998), maturational changes (Minister of Supply and Services Canada, 1988), acculturation (Unger et al., 2002), and school transition (Hyman et al., 2000). Compensatory factors (Garmezy et al., 1984), such as positive peer relations can buffer the negative effects of stressors and promote positive adjustment among adolescent newcomers.

The present study examined the role of peer relations among this at-risk population. The following aspects of peer relations were investigated in the present study: (1) friendship network characteristics, (2) peer group integration, and 3) friendship quality. The main focus of the present study was to investigate the extent to which each of these dimensions predicted the psychological and school adjustment of Chinese adolescent newcomers.

Results from the present investigation extend the research on risk and resiliency by providing cross-cultural evidence of the protective role of adolescent peer relations. Given that few cross-cultural studies have been conducted in the area of peer relations (e.g., Compas et al., 1995; Rubin et al., 1997) and a limited number of studies have been conducted on the adjustment of adolescent newcomers (e.g., Fuligni, 1998; Hyman et al., 2000), results of the present study provide a better understanding of the role of friendships among Chinese adolescent newcomers. The adjustment of the adolescent Chinese population in particular has received little attention (Chen et al., 2000), and given that the Chinese population in western Canada is significant (Citizenship and Immigration Canada, 2001), findings are of particular interest and importance to researchers and educators.
Following is a discussion of the findings of the present study. Findings address the following questions: (1) What are the characteristics of the friends of Chinese adolescent newcomers? 2) Are there gender and age differences in adolescent peer relations and adjustment among these youth? 3) To what extent do peer relations predict their adjustment? Next, the strengths, limitations and educational implications of the present study will be discussed. Finally, educational implications of the study will be considered.

Friendship Characteristics

With regard to characteristics of friends in the friendship network, findings indicated that most Chinese adolescent newcomers reported having friends of similar age, of same gender, and from the same country. These findings are not surprising given that several researchers have concluded that adolescents select friends with whom they have characteristics in common (e.g., Hartup, 1996; Pawlby et al., 1997). As well, newcomers reported having a best friend who was similar to them. This finding supports previous findings that show that children select friends of the same ethnicity (e.g., Boulton & Smith, 1996; Hallinan & Williams, 1989).

Gender and Age Differences in Peer Relations

Consistent with previous research findings on peer relations (e.g., Buhrmester, 1990; Buhrmester & Carbery, 1992; Helsen et al., 2000), gender and age differences emerged with regard to the characteristics of friends in the friendship networks of Chinese adolescent newcomers. Results indicated that early adolescent boys reported having fewer similar friends and fewer close friends than did early adolescent girls. In contrast, middle/late adolescent boys reported having more similar friends than did middle/late adolescent girls. Present findings are inconsistent with previous findings (e.g., Blyth et al., 1982; Claes, 1992). However, inconsistencies have emerged among previous research findings as well. Claes (1992), for
example, found that the demographic characteristics of the friendship networks of adolescent boys and girls were very similar. In contrast, Blyth et al. found that adolescent girls listed more same-age friends than did adolescent boys. As well, Claes found that early adolescents reported having fewer close friends than did middle-late adolescents, whereas Blyth et al. found no significant differences between early adolescents and middle adolescents with regard to number of same-age friends. Given the inconsistencies among previous research findings on friendship network characteristics, present findings are not surprising.

Results indicated that middle/late adolescents were more likely to speak Chinese with their friends, whereas early adolescents were more likely to speak English with their friends. One explanation for this finding may be related to the nature of the school environment. Recall that early adolescents in the present study consisted of 6th and 7th grade elementary students, and middle/late adolescents were 8th through 12th grade secondary students. The Chinese population in the secondary school may be greater given the larger school population and, as a result, Chinese newcomers may have more opportunities to speak Chinese with their friends. Furthermore, secondary students who speak English as a second language learn English collectively for part of the day (McCarthy & Foxx, 2001). In these classes, perhaps they have the opportunity to speak Chinese with friends who are in the same class.

With regard to gender differences in their best friendships, girls were more likely than boys to speak Chinese with their best friend, and were more likely to have a same-gender best friend. One possible explanation for these findings is that girls perhaps have more frequent and intimate conversations with friends than do boys (Buhrmester & Carbery, 1992; Claes, 1994). Buhrmester and Carbery, for instance, compared the social interactions of adolescent girls to the social interactions of adolescent boys. Findings indicated that girls engaged in more self-disclosure and more intimacy than boys. Regarding the present study, perhaps girls have more same-gender best friends so that they can have more opportunities to talk; and, they can
self-disclose much more readily in Chinese than they can in English because they are fluent in the language.

Gender differences also emerged with respect to peer group integration and friendship quality. Feelings of peer group integration were higher among girls than among boys. With respect to friendship quality, girls reported more help, more security, and more closeness in their best friendships than did boys. These gender differences are consistent with previous research in the area of peer relations (La Greca & Lopez, 1998; Parker & Asher, 1993). La Greca and Lopez (1998), for example, found that adolescent girls reported greater feelings of peer acceptance and closer friendships than boys. In the present study, girls also reported less conflict than did boys, which is inconsistent with previous findings that showed no gender differences with respect to conflict (e.g., Claes, 1994; Parker & Asher, 1993; Schonert-Reichl, 1995).

With regard to psychological adjustment, results of the present study indicated that middle/late adolescents experienced more psychosomatic symptoms than did early adolescents. It is possible that middle/late adolescents experienced more school-related stress than did early adolescents due to the heavier academic workload, which causes irregular sleep patterns and increased fatigue. No significant gender or age differences with regard to depression or anxiety emerged. Previous researchers (e.g., Boivin et al., 1995; Feldman et al., 1988) who have examined psychological adjustment variables have found no significant differences between boys and girls in their psychological adjustment, suggesting that boys and girls may experience similar adjustment problems, including depression and anxiety.

With regard to school adjustment, results of the present study indicated a significant main effect for gender, with boys scoring higher than girls on problem behaviors, and lower than girls on competent behaviors. Similar findings emerged in previous research on Chinese adolescents (Chen et al., 2000). These findings suggest that Chinese newcomer boys
experience more school adjustment problems than Chinese newcomer girls. It is possible that boys exhibit more externalizing behaviors than girls, which is why teachers reported that boys were less well-adjusted than girls. Present findings are not surprising given that gender differences with respect to school adjustment have emerged in a number of studies (e.g., Portes, 1999; Wentzel, 2002).

**Association of Peer Relations to Psychological and School Adjustment**

Previous research findings (e.g., Rutter, 1979; Werner & Smith, 2002) in the area of risk and resiliency suggest that positive peer relations are protective factors that are predictive of resiliency among adolescents at risk of psychological and school adjustment due to stressful events. Keeping this in mind, the main focus of the present study was to examine the extent to which peer relations predict psychological and school adjustment among adolescent Chinese newcomers. Findings of the present study contribute to previous evidence that positive peer relations play a protective role in the adjustment of adolescent Chinese newcomers. In the present study, friendship network, peer group integration, and friendship quality of the best friendship may be considered compensatory (protective) variables that predict psychological and school adjustment. Following is a discussion of the findings pertaining to the protective role of each of the peer relational variables examined in the present study.

The relation between friendship network and adjustment was examined in the present study. Findings indicated that the friendship network is a protective factor that predicts school adjustment, but does not predict psychological adjustment. Specifically, number of similar-age friends and number of close friends were predictive of school problem behaviors even after controlling for the effects of gender and age. These findings are inconsistent with previous findings (Claes, 1994) that revealed that characteristics of the friendship network predicted psychological adjustment. Claes (1994) found that adolescents with psychological adjustment
difficulties had fewer friends than did normal adolescents. Findings of the present study are also inconsistent with findings of a study by La Greca and Lopez (1998) who found that among girls, number of close friendships was strongly associated with social anxiety. In their study, girls who reported fewer close friendships reported more social avoidance and distress than did girls who reported more close friendships. Although inconsistent with previous research on adolescent newcomers, present findings point to the need to further investigate the role of friendships networks in predicting adjustment. Regarding school adjustment, little attention has been given to this issue (Kupersmidt et al., 1996) in previous research. As a result, present findings are significant and fill a gap in the extant peer relational literature.

Brown, Eicher, and Petrie (1986) examined the extent to which the adolescent peer group and close friendships were important. They found that belonging to a group of friends was more important than having a friend. Keeping this in mind, the present study examined the role of the peer group and close friendships during adolescence. In the present study, peer group integration emerged as one of the most significant predictors of psychological adjustment above and beyond gender, age, and friendship quality. After controlling for these variables, Chinese adolescent newcomers who reported greater peer group integration reported less anxiety, psychosomatic symptoms, and depression than did those who reported less peer group integration. These findings corroborate previous research findings on adolescent friendships that show that social alienation is associated with psychological well-being (e.g., Claes, 1994; Roeser, Midgley, & Urdan, 1996).

Findings of the present study also indicate that peer group integration is a significant predictor of school adjustment. Specifically, adolescents who reported greater peer group integration scored higher on teacher-rated school competent behaviors than did students who reported less peer group integration. This finding is consistent with those of Midgley and Urdan
(1996) who found that young adolescents who felt a sense of belonging within their school also
felt more academically competent, and less worried about their academic performance.

Friendship quality was another peer relational variable that emerged as a protective
factor among Chinese adolescent newcomers. Specifically, Chinese adolescent newcomers
whose friendships were high in conflict reported more depressive symptoms. This evidence is
consistent with previous evidence that adolescents with psychological adjustment problems
reported greater conflict in their peer relations than their well-adjusted peers (e.g., Claes, 1994;
Feldman et al., 1988). Feldman et al. (1988), for example, concluded that adolescents who
reported more arguments with and less support from friends, also reported more depressive
symptoms. Although much of previous research has been conducted with White adolescents,
previous research on Asian adolescents (Duongtran, 1996) provides similar evidence that
conflict is a significant predictor of depression. Duongtran (1996) investigated the association of
peer relations to depression among Vietnamese adolescents, and found that peer-related stress
was a significant predictor of depression. With regard to the present study, conflict may be
considered a form of stress. Rudolph and Hammen (1999) considered peer conflict as a form of
stress in their study on the relation between stress and psychological adjustment. One of their
goals was to examine the association between peer conflict and depression among
adolescents. Findings indicated that adolescent interpersonal conflict was strongly associated
with depression. Present findings provide corroborating evidence of the relation between
conflict and depression.

Recall that the relation between friendship quality and peer group integration was
examined in the present study. The peer group integration subscale (Hayden Thomson, 1989)
utilized in the present study is a subscale that measures social loneliness. Previous
researchers have explored social loneliness as an adjustment variable (e.g., Boivin et al., 1995;
Yarcheski & Mahon, 1984). Keeping this in mind, the present study examined the extent to
which friendship quality predicted peer group integration. Present findings indicated that friendship quality was a significant predictor of peer group integration. Specifically, the friendship quality dimension of help was the most significant predictor of peer group integration. This finding is somewhat consistent with previous research findings (Parker & Asher, 1993) that revealed that friendship quality, specifically the dimension of help, was a significant predictor of loneliness among 3rd- through 5th-grade students. As well, Parker and Asher found that validation and caring, conflict and betrayal, companionship and recreation, intimate exchange, and conflict resolution were significant predictors of loneliness. It is important to keep in mind that Parker and Asher did not distinguish between social loneliness and emotional loneliness in their study. Further research would be necessary in order to determine which friendship quality variables predicted social loneliness and which friendship quality variables predicted emotional loneliness. Of particular interest with regard to Parker and Asher's study, is whether or not help was a predictor of social loneliness or emotional loneliness.

Yarcheski and Mahon (1984) reported findings similar to the present study. However, similar to Parker and Asher (1993), Yarcheski and Mahon did not distinguish between social loneliness and emotional loneliness. They concluded that adolescents who had a close friendship that was low in altruism reported feeling more lonely than adolescents who had a close friendship that was high in altruism. One possible explanation is that when individuals perceive their close friends as prosocial and can rely on their friends for help, feelings of isolation and loneliness are minimized (Hamid & Lok, 2000). Chen et al. (2000) provide cross-cultural evidence of this possibility. They examined the relation between prosocial behaviors (defined as helping, cooperating, and being responsible for each other) and adjustment among Chinese adolescents. Their findings indicated that peer relations low in pro-social behaviors significantly and positively predicted loneliness. Present findings corroborate Chen et al.'s findings that pro-social peer relations are related to social loneliness. According to Chen et al.,
pro-social behavior is valued and promoted in Chinese culture. With regard to present findings, it may be that help from close friends facilitates integration within the peer group and promotes feelings of belonging and acceptance among the peer group.

Findings of the present study support extant research on the association between peer relations and psychological and school adjustment, and provide cross-cultural evidence that support previous research that suggest that positive peer relations can be a protective factor among adolescents facing adversity. The present study is of particular interest to researchers in that it provides a cross-cultural perspective on risk and resiliency theory.

Strengths and Limitations

The present study has several strengths. First, the study examined a topic that has infrequently been explored in risk and resiliency research. Much of the previous research within a risk and resiliency framework has focused on family-related stress (e.g., Rutter, 1979; Werner and Smith & Smith, 1979), poverty (Luthar, 1991; Weist et al., 1995), or health-related stress (e.g., Schissel, 1993; Werner & Smith, 2002). The present investigation extends the risk and resiliency research by focusing on migration as a risk factor.

A second strength of the present study is that it examines a minority population that has received little attention in previous research, and is representative of a significant number of Canadian youth. Previous research in the area of adolescent peer relations has focused on White children (Savin-Williams & Berndt, 1990), and studies that have been conducted with ethnic minority youth have focused on African-Americans. The present study examined Chinese adolescents, which is a population that needs more attention given the large population of Asians who immigrate to Canada each year. Extant research on Chinese adolescents has focused on American-born Chinese adolescents (e.g., Berndt & Zook, 1993; Chen et al., 2000), and few studies have focused on the peer relations of Chinese newcomers (Florsheim, 1997).
The present study provides insight into the Chinese adolescent newcomer population, which is a population that is particularly important to explore.

A third strength of the study is that the sample was drawn from sixteen elementary schools and three secondary schools. Schools located in low-income neighbourhoods were targeted for the present study in order to control for socio-economic status. Because a number of schools were targeted, findings allow for greater generalizability.

A fourth strength of the study was that all questionnaires were translated into Chinese, and back-translated to ensure reliability. Questionnaires were translated into short-hand Chinese and long-hand Chinese, and each questionnaire package included the English version of the questionnaire. An interpreter was present during data collection to translate instructions and respond to questions.

A fifth strength of the study was related to the choice of measures. The psychological adjustment scale was specifically designed for adolescent immigrants from diverse cultural backgrounds, including Chinese adolescents. Items were selected from different scales, and the experiences of immigrant youth were investigated prior to item selection.

A sixth strength of the study is that data on adjustment was collected via two sources: adolescents’ self-reports and teacher ratings. Data collection via multiple sources reduces bias in the results that result from single informants.

Although there are several strengths in the present study, a number of limitations also exist. Findings must, therefore, be interpreted with caution. First of all, given the correlational nature of the findings, causality cannot be implied in the results. Present findings indicate that positive peer relations are correlated with positive adjustment, but do not necessarily cause positive adjustment. In other words, the direction of the relation cannot be discerned. In order to investigate causal relations among the variables, a longitudinal study would be necessary.
Secondly, findings provide only modest support for the relation between peer relations and adjustment. This suggests that other confounding variables may be influencing adjustment. For example, Masten and Coatsworth (1998) have concluded that family variables, cultural variables, and individual characteristics influence adjustment. It would be necessary to investigate these variables in future studies in order to determine the extent to which they predict the adjustment of Chinese adolescent newcomers.

Limitations existed with respect to the procedure. First of all, on most occasions during data collection, the interpreter was a student. A professional interpreter was present at one of the schools, but at the other 18 schools, a fellow classmate fluent in Mandarin or Cantonese, or both, was present. On a few occasions, a fluent English-speaking participant would be requested to translate instructions. Because different interpreters translated instructions, instructions provided may not have been exactly the same. In other words, different interpreters may have used different words in order to explain instructions.

Although limitations exist with regard to the procedures and findings of the present study, results provide cross-cultural evidence of the relation between peer relations and adjustment. In view of these limitations, further research is needed in order to provide a more complete picture of adjustment among Chinese adolescent newcomers.

**Future Directions**

Extant research provides convergent evidence that acculturation is a risk factor closely associated with psychological adjustment (e.g., Portes and Rumbaut, 2001; Rasmussen, Negy, Carlson, & Burns, 1997). Cross-cultural studies that include a measure of acculturation would provide important information about level of risk experienced by the newcomer population. Future studies examining the relation among acculturation, peer relations, and adjustment would provide a more complete picture of the experiences of Chinese adolescent newcomers.
Another recommendation for future studies is to compare Canadian-born Chinese adolescents to Chinese adolescent newcomers. A comparative study would determine the extent to which cultural identity plays a role in peer relations and adjustment. Chen et al. (2000) explain that prosociality, for example, is highly regarded in Chinese culture. The extent to which culture contributed to present findings was not determined. However, this must be explored and clarified in future studies.

*Educational Implications*

Findings in the present study suggest a need for further exploration of the role of peer relations in the adjustment of Chinese adolescent newcomers. Although more research is necessary, findings from the present study suggest that social well-being significantly and positively predicts psychological and school adjustment among adolescent Chinese newcomers. For educators, implications for this finding are significant. First, these findings point to the need for educators to be aware of the social dynamics of these particular students. Moreover, it points to the need for teachers to intervene when the social needs of these students are not being met. For instance, when conflict between peers arise, intervention is necessary in order to avoid depression. When students appear socially alienated, intervention is necessary in order to prevent psychosomatic symptoms, anxiety, and depression. When educators are more aware of the social difficulties experienced by adolescent newcomers, they are more prepared to react and intervene when peer relational problems arise.

The findings not only point to the need for educators to be aware of and intervene when problems arise, they also point to the need for teachers to be proactive. Programs designed to promote social competence and conflict resolution skills need to be in place so that positive peer relations can be promoted among adolescent newcomers. When educators are proactive, psychological and school adjustment problems among their students are minimized.
Clearly results of the present study have several implications for researchers and educators. Given the fact that approximately 250,000 new immigrants settled in Canada in 2001 (CIC, 2001), and that the largest portion of immigrants are from Asian countries, continued research on this population is of great importance. Asian adolescents represent a significant portion of the adolescent population, and in order to effectively meet the needs of the Canadian adolescent population, continued cross-cultural research on this at-risk population is of critical importance.

Summary

The present study corroborates evidence in the risk and resiliency research that adolescents who face adverse circumstances may overcome their significant challenges if they can draw on social-contextual resources, in this case peers. Positive peer relations may be a protective resource that predicts positive adjustment. Clearly the present study provides evidence that characteristics of the friendship network, peer group integration, and friendship quality are compensatory variables that predict healthy psychological and school adjustment. Although previous studies have documented the role of peer relations during adolescence, the present study is exploratory in nature given that scant cross-cultural research has been conducted in this area. Future research is necessary not only to clarify the role of peer relations, but also to explore other variables, such as family relations, that may contribute to psychological and school adjustment, among adolescent newcomers. This research can in turn enable educators to plan and implement programs that promote resiliency among this at-risk population.
References


Frankel, K. (1986). *The relationship of coping and social milieu perceptions to self-reported depression in middle school girls.* Presented at the First Biennial Meeting of the Society for research in adolescence, Madison, WI.


Psychiatry and Allied Disciplines, 42, 755-765.


accepted children at risk? Psychological Bulletin, 102, 357-389.

Links with peer group acceptance and feelings of loneliness and social dissatisfaction.
Developmental Psychology, 29, 611-621.


differences in intimate friendship. *Developmental Psychology, 5*, 800-808.


Appendixes

Appendix A: Number of Immigrants From People's Republic of China: 1997 - 2001
Annual Chinese Immigration to Canada
Appendix B: Background Information Questionnaire
Directions for pages 1 through 8
1至8页的说明

- Place a checkmark in the box ☑ that describes you.
  选择题，请选定的方框内打勾

- Questions that require a written response (for example, question 2) may be written in English or Chinese.
  问答题，可用中文或英文回答。

- If you do not understand a question or a word, please ask one of us for help.
  如果您对某个问题或单词的意思不确定，可向我们咨询。

- Please ANSWER ALL QUESTIONS. Answer each question as best as you can.
  敬请回答每一个问题。

1. Are you a boy or girl? ☐ boy 男孩 ☐ girl 女孩

2. What is your birthdate?

   您的生日是
   （Month）月 （Day）日 （Year）年

3. How do you describe yourself in terms of your ethnic origin? ☐ Chinese 中国 ☐ Other (Please specify): 其它

   您的祖籍是
   （请填写）
4. What grade are you in this year? □ 8th 8年级 □ 9th 9年级 □ 10th 10年级 □ 11th 11年级 □ 12th 12年级
今年，您上几年级？

5. Which of these adults do you live with most of the time? (Please check off ALL the adults that live in your house in Vancouver) 您多数时间与以下哪位成人住在一起？

□ mother 母亲 □ Stepfather 继父
□ father 父亲 □ Stepmother 继母
□ grandmother 祖母 □ foster parents 养父母
□ grandfather 祖父 □ Other Adults (for example, aunt, uncle, friend's parents, etc.) Please list: 其它（如：阿姨，叔叔，朋友的父母等）

6. What is your residential status? (Please check only ONE box) 您的身份是什么？（请选择一格填写）

□ refugee 难民 □ landed immigrant 移民（以落地） □ don't know 不详
□ refugee claimant 难民身份申请人 □ visiting student 交流学生
7. **What is your Religious Affiliation? (Please check only ONE box)**

- □ Christianity 基督教
- □ Islam (Muslim) 伊斯兰教
- □ Buddhism (Buddhist) 佛教
- □ None 无
- □ Other (PLEASE SPECIFY):
  其它（请选择填写）：

8. **How much education does your father (stepfather) have?**

- □ No education 没有受过教育
- □ Some primary school 部分小学课程
- □ Completed primary school 小学毕业
- □ Some secondary school 部分中学课程
- □ Graduated from secondary school 中学毕业
- □ Vocational or technical school 技校
- □ Some college or university 部分大学课程
- □ Graduated from college or university 大专或大学毕业
- □ Attended graduate or professional school 研究生院或专门院校
  （如医学院，法学院）
- □ Don't Know 不详
9. What is your father's (stepfather's) occupation? (Describe his job. Please be specific.)
   您父亲（继父）的职业是什么？（请具体写明）

10. How much education does your mother (stepmother) have? (Please check only ONE box)
    您母亲（继母）受教育情况如何？

<table>
<thead>
<tr>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ No education</td>
</tr>
<tr>
<td>□ Some primary school</td>
</tr>
<tr>
<td>□ Completed primary school</td>
</tr>
<tr>
<td>□ Some secondary school</td>
</tr>
<tr>
<td>□ Graduated from secondary school</td>
</tr>
<tr>
<td>□ Vocational or technical school</td>
</tr>
<tr>
<td>□ Some college or university</td>
</tr>
<tr>
<td>□ Graduated from college or university</td>
</tr>
<tr>
<td>□ Attended graduate or professional school</td>
</tr>
<tr>
<td>(for example, to become a doctor, lawyer, or teacher)</td>
</tr>
<tr>
<td>□ Don't Know</td>
</tr>
</tbody>
</table>
11. What is your mother's (stepmother's) occupation? (Describe her job. Please be specific.)

12. What language(s) can you speak with other people? (Please check ALL the languages you can speak with other people)

- Cantonese 广东话
- Mandarin 国语
- English 英语
- Other (PLEASE SPECIFY): 其它（请注明）

13. What language do you speak most of the time at home? (Please check only ONE box)

- Cantonese 广东话
- Mandarin 国语
- English 英语
- Other (PLEASE SPECIFY): 其它（请注明）

14. What language do you speak most of the time with friends? (Please check only ONE box)

- Cantonese 广东话
- Mandarin 国语
- English 英语
- Other (PLEASE SPECIFY): 其它（请注明）
15. What language do you speak most of the time with your best friend? (Please check only ONE box)
您与好朋友交谈最常用的语言是什么？

□ Cantonese 广东话

□ Mandarin 国语

□ English 英语

□ Other (PLEASE SPECIFY): 其它（请注明）

16. Where were you born?
您的出生地在哪里？

□ China (mainland) 中国（大陆）

□ Taiwan 台湾

□ Hong Kong 香港

□ Other (Please specify): 其它（请注明）

17. Where did you live before you came to Canada?
您来加拿大前，曾在哪里居住过？

□ China (mainland) 中国（大陆）

□ Taiwan 台湾

□ Hong Kong 香港

□ Other (PLEASE SPECIFY): 其它（请注明）

18. How long have you lived in Canada? (Please specify number of years and number of months)
您在加拿大居住了多久？(请写出年/月)

years 年    months 月
19. Where did you go to school before Windermere high school?

[ ] Canada 加拿大 [ ] Taiwan 台湾
[ ] China (mainland) 中国（大陆） [ ] Other (PLEASE SPECIFY): 其它（请注明）
[ ] Hong Kong 香港

20. Does your father (stepfather) live with you in your house?

[ ] Yes 是 [ ] No (if no, where does he live?) 否（他住在哪里？）

          city 城市         country 国家

21. Does your mother (stepmother) live with you in your house?

[ ] Yes 是 [ ] No (if no, where does she live?) 否（她住在哪里？）

          city 城市         country 国家

22. How long have you been attending Windermere school? (Please specify number of years and number of months)

您在 Windermere中学读了几年书？（请写明年、月）

          years 年          months 月

THANK YOU! For the following pages, please read all of the directions before starting.

感谢合作！以下问卷，请参照说明。
Appendix C: Peer Group Integration Questionnaire
<table>
<thead>
<tr>
<th></th>
<th>Not True 没有这种情况</th>
<th>Hardly Ever True 极少有这种情况</th>
<th>Sometimes True 有时有这种情况</th>
<th>True Most of the time 大多数时候</th>
<th>Always True 完全真</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel part of a group of friends that does things together. 我感觉我的朋友们做事能同心协力</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. I have a lot in common with other people my age. 我与同龄人有很多相似之处</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. I feel in tune with other people my age. 我感觉与同龄人相处和谐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. I feel other people my age want to be with me. 我感觉同龄人愿意与我交朋友</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. I feel that I usually fit in with other people my age who are around me. 我感觉能与身边的同龄人相处和谐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>6. When I want something to do for fun, I can usually find friends to join me. 当我想娱乐的时候，通常能找到朋友加入</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>7. When I am with other people my age, I feel I belong. 当我与同龄人在一起的时候，我感觉自己是其中一员</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix D: Friendship Network Questionnaire
<table>
<thead>
<tr>
<th>First name of This person</th>
<th>Is this Person A boy or girl?</th>
<th>Do you know this person well?</th>
<th>Does this person go to your school?</th>
<th>Is this person the same religion as you?</th>
<th>Are you from the same country?</th>
<th>Is this person a relative? (sister or cousin, for example)</th>
<th>How old is this person?</th>
<th>Which country does this person Live in?</th>
<th>Is this person a really close friend?</th>
<th>Do you see and do things together after school and on weekends?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Manny</td>
<td>Boy</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>15</td>
<td>Taiwan</td>
</tr>
</tbody>
</table>

例如：

- Boy: 男
- No: 否
- Yes: 是
- Yes, No: 是 否
- Yes or No: 是 否
- Yes: 是
- No: 否
Appendix E: Friendship Quality Questionnaire
<table>
<thead>
<tr>
<th></th>
<th>Not True 不真实</th>
<th>Hardly Ever True 基本不真实</th>
<th>Sometime True 有时真实</th>
<th>True most of the time 基本真实</th>
<th>Really True 完全真实</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My friend and I spend all our free time together. 我的朋友和我空余时间总是在一起。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. My friend thinks of fun things for us to do together. 我的朋友会想到和我一起去做开心的事。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. My friend and I go to each other's houses after school and on weekends. 放学后和周末，我和朋友会到对方家里玩。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Sometimes my friend and I just sit around and talk about things like school, sports, and things we like. 有时，我会和朋友闲坐聊天，谈谈学校，运动和我们感兴趣的事情。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not True</td>
<td>Hardly Ever True</td>
<td>Sometimes True</td>
<td>True most of the time</td>
<td>Really True</td>
</tr>
<tr>
<td>---</td>
<td>----------</td>
<td>------------------</td>
<td>----------------</td>
<td>----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>5. I can get into fights with my friend.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>我会和朋友打架。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. My friend can bug me or annoy me even though I ask him or her not to.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>我的朋友会烦扰我或让我生气。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>尽管我告诉他或她不要那样作。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. My friend and I can argue a lot.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>我常和朋友争吵。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. My friend and I disagree about many things.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>我和朋友对很多事情的看法都不同。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not True</td>
<td>Hardly Ever True</td>
<td>Sometimes True</td>
<td>True most of the time</td>
<td>Really True</td>
</tr>
<tr>
<td>---</td>
<td>----------</td>
<td>------------------</td>
<td>----------------</td>
<td>-----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>9. If I forgot my lunch or needed a little money, my friend would loan it to me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>如果我忘了午餐或缺钱，我的朋友会借给我。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. My friend helps me when I am having trouble with something.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>当我有麻烦的时候，朋友会帮助我。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. My friend would help me if I needed it.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>当我需要帮助时，朋友会帮我。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. If other kids were bothering me, my friend would help me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>如果其它孩子骚扰我，我的朋友会帮助我。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not True</td>
<td>Hardly Ever True</td>
<td>Sometimes True</td>
<td>True most of the time</td>
<td>Really True</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
<td>-----------------</td>
<td>----------------</td>
<td>-----------------------</td>
<td>------------</td>
</tr>
<tr>
<td>13. My friend would stick up for me if another kid was causing trouble. 当其它孩子找我麻烦时，我的朋友会站在我身边。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14. If I have a problem at school or at home, I can talk to my about it. 无论我在学校或在家里有了困难，可以向朋友倾诉。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15. If there's something bothering me, I can tell my friend about it even if it's something I cannot tell to other people. 当我有了烦心的事，无论它是多么不可告人，我可以向朋友诉说。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16. If I said I was sorry after I had a fight with my friend, he or she would still stay mad at me. 当我和朋友打了一架之后，尽管我说了对不起，我的朋友依然怒气冲冲。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>Not True 不真实</td>
<td>Hardly Ever True 基本不真实</td>
<td>Sometimes True 有时真实</td>
<td>True most of the time 基本真实</td>
<td>Really True 完全真</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>-----------------------------</td>
<td>--------------------------</td>
<td>-------------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>17. If my friend or I do something that bothers the other one of us, we can make up easily.  如果我或朋友做了令对方不快的事，我们能很快和解</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>18. If my friend and I have a fight or argument, we can say “I'm sorry “ and everything will be alright. 如果我和朋友吵了一架或打了一架，我们只要说声对不起，大家就不再介意。</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>19. If my friend had to move away, I would miss him or her. 如果我朋友搬了家，我会思念他 / 她。</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>20. I feel happy when I am with my friend. 当我和朋友在一起的时候，我感到快乐。</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td></td>
<td>Not True</td>
<td>Hardly Ever True</td>
<td>Sometimes True</td>
<td>True most of the time</td>
<td>Really True</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
<td>-----------------</td>
<td>----------------</td>
<td>----------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>21. I think about my friend even when my friend is not around.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>即使朋友不在身边，我也会想到他/她。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. When I do a good job at something, my friend is happy for me.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>当我获得成功，朋友会替我高兴。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Sometimes my friend does things for me, or makes me feel special.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td></td>
<td>有时，我朋友会为我做事，或带给我惊喜。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: Psychological Adjustment Questionnaire
<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel tired.</td>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>我感觉疲倦。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I feel sick in the stomach.</td>
<td></td>
<td></td>
<td></td>
<td>☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>我感觉恶心。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I feel dizzy and faint.</td>
<td></td>
<td>☐</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>我感觉头晕欲坠。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I feel short of breath even when not exerting myself.</td>
<td></td>
<td></td>
<td>☐</td>
<td></td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>即使没有大量运动，我也感觉接不上气。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I feel weak all over.</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>我感觉全身虚弱。</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Very Often</td>
</tr>
<tr>
<td>---</td>
<td>-------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>6. I feel tense or keyed up.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I feel nervous and shaky inside.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I feel restless.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I feel annoyed or irritated.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I am worried about something bad happening to me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我感觉有压力。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我感觉内心紧张。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我感觉静不下来。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我觉得烦或者恼怒。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我担心什么糟糕的事情发生在我身上。</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Never</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Very Often</td>
</tr>
<tr>
<td>---</td>
<td>-------</td>
<td>--------</td>
<td>-----------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>11. I feel unhappy and sad.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我感觉沮丧。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>12. My thoughts seem to be mixed up.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我思路混乱。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>13. I worry a lot most of the time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>我总是忧心忡忡。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14. I feel lonely even with other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>即使与他人在一起，我也感到很孤独。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15. I lose interest and pleasure in things that I usually enjoy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>对自己曾经感兴趣的事情，我不再有兴趣。</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Appendix G: Teacher - Child Rating Scale
A. Please rate this student on the following items by circling the number on the scale which best describes the student.

<table>
<thead>
<tr>
<th>Item</th>
<th>Not a problem</th>
<th>Mild problem</th>
<th>Moderate Problem</th>
<th>Serious problem</th>
<th>Very serious problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Disruptive in class</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Withdrawn</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Underachieving (not working up to ability)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Fidgety, difficulty sitting still</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Shy, timid</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Poor work habits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Disturbs others while they are working</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Anxious, worried</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Poor concentration, limited attention span</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Constantly seeks attention</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Nervous, frightened, tense</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Difficulty following directions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Overly aggressive to peers (fights)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Does not express feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Poorly motivated to achieve</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Defiant, obstinate, stubborn</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Unhappy, sad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. Learning academic subjects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

B. Please rate the following according to how well they describe the students.

<table>
<thead>
<tr>
<th>Item</th>
<th>Not at all</th>
<th>A little</th>
<th>Moderately Well</th>
<th>Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Accepts things not going his/her way</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Defends own views under group pressure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Completes work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Has many friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Ignores teasing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Comfortable as a leader</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Well organized</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Is friendly toward peers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Accepts imposed limits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Participates in class discussions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Functions well even with distractions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Makes friends easily</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Copes well with friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Expresses ideas willingly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. Works well without adult support</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. Classmates want to sit near this student</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Tolerates frustration</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. Questions rules that seem unfair/unclear</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. A self-starter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. Well liked by classmates</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Appendix H: Agency Consent Form
AGENCY CONSENT FORM

Learning About Adolescent Newcomers

Principal Investigator: Dr. Kimberly Schonert-Reichl
Associate Professor
University of British Columbia
Faculty of Education, Department of Educational and
Counselling Psychology, and Special Education
Room #2310-2125 Main Mall
Vancouver, B.C., V6T 1Z4, Canada

Co-Investigator: Zuhra Teja (Master’s candidate)
University of British Columbia
Faculty of Education, Department of Educational
and Counselling Psychology, and Special
Education

Please Note: This study will be completed to fulfil
the thesis requirements for a Master’s of Arts
degree in Special Education in the Department of
Educational and Counselling Psychology, and
Special Education

Dear Principal,

We are writing to request permission to carry out a research project at
your school, entitled “Learning About Adolescent Newcomers”.

For adolescent newcomers (landed immigrants and refugees), adjusting
to life in a new country can be a stressful experience. The purpose of this
study is to investigate the association between peer relations and
adjustment among a sample of adolescent newcomers in grades 6
through 12. As educators, we recognize the importance of assessing and
being informed about the well-being of our students so that we can more
effectively support them. We are aware that many students are
immigrants or children of immigrants who have struggled with the
hardships of resettlement in Canada. Unfortunately, little is known about
the adjustment difficulties they face socially, psychologically or
academically. The data from this research will, therefore, be very helpful
in diagnosing the social, psychological and academic needs of adolescent
newcomers. Moreover, for educators, this research will be especially
beneficial because they will be more fully aware of the challenges these
students face and can prepare to effectively meet these challenges. Not
only will this research benefit educators, but this research will have significance at
a provincial, national and potentially international level, as researchers, educators
and other professionals in the area of immigration, become more informed about
the needs of immigrant and refugee students.

Study Procedures:

Students who have lived in Canada for five years or less will be eligible to
participate in this study. Students who return parental consent forms will fill out a
set of questionnaires in their classrooms, which will require 45 minutes to
complete. Most questions will ask students about themselves. For example,
students will write where they were born, how old they are, how long they have
lived in Canada, and where they lived before coming to Canada. A few questions
will ask students about their guardian’s level of education and occupation, and
whether they are refugees or landed immigrants. The other questionnaires will
ask students about their peer relations and how they feel about their peer
relations. Some questions will ask about how they are feeling and how they
behave. Students may choose to complete the questionnaires in English or their
first language. Teachers who choose to participate will also complete a checklist
about how these students behave. These checklists will take 5 minutes to
complete for each student.

Confidentiality:

Participation in this study is entirely voluntary and withdrawal from the
research study or refusal to participate will not jeopardize the student in any way.
All information collected will be strictly confidential and will not be available to
students, teachers, parents or any other school personnel. No names will appear
on any of the questionnaires; instead, numbers will be assigned to each student.
No individuals other than the investigators (principal investigator and co-
investigator) of this study will have access to the information collected from the
students.
Remuneration / Compensation:

All students who return guardian and student consent forms, whether consent is provided or not, will have the opportunity to win a $15.00 gift certificate for A & B sound. Five students will be randomly selected as winners.

We would be extremely pleased if you consent to this research project being conducted at your school, so that we can be better informed about the needs of students from other countries. The researcher would be happy to present the findings to your staff once the research has received final approval. We thank you for your time and appreciate your consideration of this worthwhile endeavour.

Dr. Kimberly Schonert-Reichl
Principal Investigator
Department of Educational Psychology and Special Education

Ms. Zuhra Teja
Co-investigator
Department of Educational Psychology, and Special Education
Appendix I: Guardian Consent Form
GUARDIAN CONSENT FORM

Learning About Adolescent Newcomers

Principal Investigator: Dr. Kimberly Schonert-Reichl
Associate Professor
University of British Columbia
Faculty of Education, Department of Educational and
Counselling Psychology, and Special Education
Room #2310-2125 Main Mall
Vancouver, B.C., V6T 1Z4, Canada

Co-Investigator: Zuhra Teja (Master's candidate)
University of British Columbia
Faculty of Education, Department of Educational and
Counselling Psychology, and Special Education

Please Note: This study will be completed to fulfill the thesis requirements for a Master's of Arts degree in Special Education in the Department of Educational and Counselling Psychology, and Special Education

Dear Parent or Guardian,

We are writing to request the permission for your son or daughter to participate in a research project that we are conducting at School entitled “Learning About Adolescent Newcomers”.

Purpose:

The purpose of this study is to investigate the relation between friendship and adjustment among a sample of adolescents who have come from other countries in grades 6 through 12. There is not much information about students from other countries (newcomers); so, your child’s participation in this study will help us learn about the importance of friendship to them. We also hope that the results of this study will inform educators about the adjustment of students from other countries, so that they can be better prepared to help these students adjust more easily.
Study Procedures:

Students who participate in this study will be asked to fill out a set of questionnaires in their classrooms, which will require one hour to complete. Most questions will ask students about themselves. For example, students will write where they were born, how old they are, how long they have lived in Canada, and where they lived before coming to Canada. The other questionnaires will ask students about their friendships and how they feel about these friendships. Some questions will ask about how your child is feeling and how your child behaves. Teachers will also complete a questionnaire about how your child behaves. A few questions will ask students about their guardian’s level of education and occupation, and whether they are refugees or landed immigrants. All questions will be written in English and Chinese. Students who do not volunteer to participate in this study will be given an activity to do that is related to a topic in their regular class.

Confidentiality:

Participation in this study is entirely voluntary and withdrawal from the research study or refusal to participate will not jeopardize the student in any way. All information collected will be strictly confidential and will not be available to students, teachers, parents or any other school personnel. No names will appear on any of the questionnaires; instead, numbers will be assigned to each student. No individuals other than the investigators of this study will have access to the information collected from the students.

Remuneration / Compensation:

All students who return guardian and student consent forms, whether consent is provided or not, will have the opportunity to win a $15.00 gift certificate for A & B sound. Five students will be randomly selected as winners.

We would be extremely pleased if your son or daughter decides to participate and if you are willing to give him or her permission to teach us about students from other countries. Thank you very much for your time and consideration of this request.
Appendix J: Student Consent Form
Dear Student,

We are writing to request your participation in a research project that we are conducting at Windermere Secondary School entitled “Learning About Adolescent Newcomers”.

Purpose:

The purpose of this study is to learn about your personal feelings and about your friendships with people your own age. Your participation in this study will help us learn about the friendships of newcomers. Newcomers are students who are from other countries. There are so many newcomers your age in Canada, but we don’t know very much about them. You will be teaching teachers, researchers, and other students who will be able to learn from you. By learning more about you, teachers can help you more, as you are very important to them.

Study Procedures:

You will be asked to fill out a set of questionnaires about you, your feelings and your friends. It will take 45 minutes to one hour to complete the questionnaires in the cafeteria. The questions will be written in English and Chinese, and you may answer in English or Chinese. If you choose to not participate in this study, you will be given a regular classroom assignment to do.

Confidentiality:

Your participation in this study is entirely voluntary and you can withdraw from the research study or refuse to participate at any time, and no one will treat you badly. All information collected will be strictly confidential and will not be available to students, teachers, parents or any other staff. No names will appear on any of the questionnaires; instead you will be given a number. Only the researchers will see your information.
Remuneration / Compensation:

All students who return guardian and student consent forms, whether consent is provided or not, will have the opportunity to win a $15.00 gift certificate for A & B sound. Five students will be randomly selected as winners.

We would be very pleased and thankful if you participate because by teaching us about yourselves, we can learn more about students from other countries.
STUDENT CONSENT

I have read and understood the details outlined in the attached letter regarding the study entitled “Learning About Adolescent Newcomers.”

I understand that I can withdraw from the study at any time or refuse to participate, and no one will treat me badly.

I have received a copy of this consent for my own records.

☐ Yes, I would like to participate.

☐ No, I would not like to participate.

Signature of Student

Student’s Name (please print)

Today's Date
Appendix K: Teacher Consent Form
TEACHER CONSENT FORM

Learning About Adolescent Newcomers

Principal Investigator: Dr. Kimberly Schonert-Reichl
Associate Professor
University of British Columbia
Faculty of Education, Department of Educational and
Counselling Psychology, and Special Education
Room #2310-2125 Main Mall
Vancouver, B.C., V6T 1Z4, Canada

Co-Investigator: Zuhra Teja (Master's candidate)
University of British Columbia
Faculty of Education, Department of Educational and
Counselling Psychology, and Special Education

Please Note: This study will be completed to fulfill the
thesis requirements for a Master's of Arts degree in
Special Education in the Department of Educational
and Counselling Psychology, and Special Education

Dear Teacher,

We are writing to request your consent to participate in a research project at your school entitled “Learning About Adolescent Newcomers”.

Purpose:
For adolescent newcomers (landed immigrants and refugees), adjusting to life in a new country can be a stressful experience. The purpose of this study is to investigate the association between peer relations and adjustment among a sample of adolescent newcomers in grades 6 through 12. As an educator myself, I recognize the importance of assessing and being informed about the well-being of our students so that we can more effectively support them. I am aware that many students are immigrants who have struggled with the hardships of resettlement in Canada. Unfortunately, little is known about the adjustment difficulties they face socially, psychologically and academically. The data from this research will, therefore, be very helpful in diagnosing the social, psychological and academic needs of adolescent newcomers. Moreover, for educators, these research findings will be especially beneficial because they will be more fully aware of the challenges
these students face and can prepare to effectively meet these challenges. Not only will this research benefit educators, but this research will have provincial, national and international significance, as researchers, educators and other professionals in the area of immigration, become more informed about the needs of immigrant and refugee youth.

**Study Procedures:**

Chinese students who have lived in Canada for five years or less will be eligible to participate in this study. Students who return parental consent forms will fill out a set of questionnaires in their classrooms, which will require one hour to complete. Most questions will ask students about themselves. For example, students will write where they were born, how old they are, how long they have lived in Canada, and where they lived before coming to Canada. A few questions will ask students about their guardian's level of education and occupation, and whether they are refugees or landed immigrants. The other questionnaires will ask students about their friendships and how they feel about these friendships. Some questions will ask about how they are feeling and how they behave. Students may choose to complete the questionnaires in English or Chinese.

Your participation will involve completing a checklist about how these students behave. Each checklist will take 5 minutes to complete, and 5 minutes to two hours of your time in total. Only one checklist will be filled out for each student.
Confidentiality:

Participation in this study is entirely voluntary and withdrawal from the research study or refusal to participate will not jeopardize the student in any way. All information collected will be strictly confidential and will not be available to students, teachers, parents or any other school personnel. No names will appear on any of the questionnaires; instead, numbers will be assigned to each student. No individuals other than the investigators of this study will have access to the information collected from the students.

Remuneration / Compensation:

All students who return guardian and student consent forms, whether consent is provided or not, will have the opportunity to win a $15.00 gift certificate for A & B sound. Five students will be randomly selected as winners.

We would be extremely pleased if you consent to participate in this research project being conducted at ____________ school, so that we can be better informed about the needs of adolescent newcomers. We thank you for your time and appreciate your consideration of this worthwhile endeavour.
Appendix M: Back – Translations
Back-translations

Peer group integration:
1. I feel part of a group of friends that does things together.
2. I have a lot in common with the people of my own age.
3. I feel that I can live in harmony with the people of my own age.
4. I feel that people of my own age like to be my friends.
5. I feel that I fit in with other people of my own age.
6. I normally have no problem to find friends who are willing to join me when I want to have some entertainment.
7. I feel that I am a member of the group when I am with the people of my own age.
Friendship Quality

1. My friend and I always spend our leisure time together.
2. My friend will think of doing happy things with me.
3. My friend and I will go to each other's house after school and during the weekend.
4. Sometimes I chat with my friend about things like school, sports, and things we like.
5. I might have a fight with my friend.
6. My friend will still provoke me in spite of my protest.
7. I quarrel with my friend a lot.
8. My friend and I have different perspectives on many issues.
9. If I forget to bring my lunch or have no money, my friend will lend me his/her money.
10. My friend will help me out when I am having problems.
11. My friend will help me when I need help.
12. My friend will help me out when I am disturbed by other people (or children).
13. My friend will stand beside me when other people cause trouble to me.
14. When I have problems in school or at home, I can always share them with my friend.
15. When I have things that bother me, even though they should not be revealed to others, I can still go and share them with my friend.
16. After having a fight, my friend will still get angry despite my apology.
17. My friend and I will be able to make peace quickly if we offend one another.
18. We do not take into heart over a quarrel or a fight with one another after we have apologized to each other.
19. I will think of my friend if he/she has moved away.
20. I feel happy when I am with my friend.
21. I will think of my friend even if he/she is not with me.
22. My friend will share the joy of my success with me.
23. Sometimes my friend will help me out or do something to surprise me.
Psychological adjustment

1. I feel tired.
2. I feel disgusted in the stomach.
3. I feel dizzy.
4. I feel exhausted even though I do not exert myself too much.
5. My whole body feels weak.
6. I feel stressful.
7. I feel nervous.
8. I feel I cannot calm down.
9. I feel annoyed or irritated.
10. I am worried about something bad happening to me.
11. I feel unhappy.
12. I worry a lot most of the time.
13. My mind is confused.
14. I lose my interest in the things I used to enjoy.
15. I feel lonely even though I am surrounded by people.
Appendix N: Results of Gender and Age Differences on Number of Close Friends
Results of Gender and Age Differences on Number of Close Friends

![Bar chart showing the number of close friends for boys and girls in early and middle/later stages of development.](chart.png)