Risk and protection factors in the peer context: how do other children contribute to the psychosocial adjustment of the adolescent?

Fatores de risco e proteção no contexto dos pares: como outras crianças contribuem para o ajuste psicossocial do adolescente?

Marie-Hélène Véronneau [1]
Sophie-Caroline Trempe [1]
Alexandra Oliveira Paiva [1]

[1] Département de Psychologie, Faculté des Sciences Humaines, Université du Québec à Montréal. succ. 8888 succursale Centre-Ville Montréal QC H3C 3P8 Canada. veronneau.marie-helene@uqam.ca

Abstract *As children become adolescents, peers assume greater importance in their lives. Peer experiences can either help them thrive or negatively affect their psychosocial adjustment. In this review article definitions for the types of peer experiences are provided followed by an overview of common psychosocial issues encountered by adolescents. Past research that has pointed to risk and protection factors that emerge from peer experiences during adolescence and the role of peer influences in the context of current issues relevant to adolescent education are discussed. Research suggests that friendships with deviant peers, involvement in bullying and the experience of rejection from the overall peer group are related to adjustment problems, whereas friendships with prosocial and academically oriented peers and social acceptance in the peer group are related to healthy development. Friendship quality, popularity among peers, and involvement in friendship cliques cannot be clearly categorized as either positive or negative influences, because they interact with other factors in shaping the development of adolescents. The promotion of social skills and positive youth leadership as an integral part of the student's learning process in school is recommended.*

Key words *Peer relationships, Protection factors, Risk factors, Development of the adolescent*

Resumo *No momento que as crianças se tornam adolescentes, colegas assumem uma importância maior em suas vidas. Experiências com os colegas podem ajudá-los a prosperar ou, ao contrário, prejudicar o seu ajustamento psicossocial. Este artigo de revisão primeiro fornece definições para os tipos de experiências entre pares, em seguida dá uma visão geral das principais questões psicossociais enfrentadas pelos adolescentes e, finalmente, analisa pesquisas anteriores que apontaram risco e fatores de proteção emergentes das experiências entre pares durante a adolescência. A pesquisa sugere que as amizades com pares desviantes, envolvimento em atos de bullying, e a experiência da rejeição do grupo global de pares são relacionados com problemas de adaptação, enquanto amizades com colegas pró-sociais, orientação acadêmica e aceitação social do grupo de pares são relacionadas com um desenvolvimento saudável. Amizade de qualidade, popularidade entre os pares e envolvimento em panelinhas de amizade não podem ser claramente classificados como influências positivas ou negativas, porque interagem com outros fatores na formação do desenvolvimento dos adolescentes.*

Palavras-chave *Relações entre pares, Fatores de proteção, Fatores de risco, Desenvolvimento do adolescente*

Introduction

When one thinks about vulnerability and resiliency in the context of human development, strengths and weaknesses at the individual level first come to mind. In practice, most intervention programs designed to prevent adverse outcomes, such as depression, anxiety, and substance use, focus on individual factors[1-3]. However, the combination of resiliency and vulnerability factors that makes each individual unique cannot be fully understood outside of the social context in which they live and grow. There is growing evidence that human development is driven by interactions between individual and environmental factors[4]. In this article we provide an overview of one important but often neglected source of social influence in adolescent adjustment: peer experiences. Adult influences of family, teachers, coaches, and mentors are obviously important in youth development[5-7]. But as children grow older, peers become increasingly important in youths' cognitive, social, and emotional development[8,9]. Researchers and practitioners must strive to understand the many ways in which peers may play the roles of risk and protective factors, so that policies and interventions aimed at building youths' resiliency take into account all major sources of social influence.

The goal of this article is to highlight some of the theoretical work that has contributed to give a coherent framework to interpret the many studies conducted on peer relationships. Also, the empirical studies that are described in this article were selected because they provide good examples of current trends in this field of research. In this review, we first define the peer experiences that are most commonly studied and briefly describe aspects of psychosocial adjustment that can be influenced by peers. We then explain how certain types of peer experiences may increase youths' vulnerability for maladjustment and how others can enhance their resilience.

Defining Peer Experiences

Peers are individuals who share some relative equity with regard to age, power status within the society at large, and social contexts that they occupy daily (e.g., schools, neighborhoods, parks, online social networks). Rubin et al.[10] suggest a useful framework to describe different levels of social complexity in peer experiences. Two individuals interacting on a regular basis develop a dyadic relationship (e.g., friendship, antipathy, romance, partnership in sports), but social experiences in the larger group experiences are more complex. Peer groups are particularly relevant to the life of Western adolescents because almost all youths attend school with their age mates. Social norms, pressures, and hierarchies that influence adolescents' social experiences emerge in large part from the peer group itself. In the same way that adults have informal leaders, so do teenagers. It is nearly impossible to capture the full range of cumulative and multiplicative complexity across the several levels of social hierarchy. Nevertheless, deeper understanding of these processes can emerge from studies in which results are contextualized and other elements of adolescents' social life are taken into account.

Friendships

Because friendships have received more research attention than have other types of dyadic experiences, our review focuses on their influence on adolescent adjustment. It is generally agreed that friendships are voluntary and reciprocated and that their purpose is to satisfy socioaffective needs (e.g., love, attachment, affection, intimacy, loyalty, support, security) rather than to serve exclusively instrumental needs[10-12]. Conflicts, disagreements, or fights may arise between friends, but they are not predominant—otherwise, the friendship is usually terminated. In their meta-analysis, Newcomb and Bagwell[13] note that many studies have looked at unilateral friendships, which suggests that reciprocity of the relationship is not always considered to be an essential criterion of friendship. These authors suggest the use of two axes, knowing and liking, to classify peer relationships; as such, mutual friends would rate highly on both axes.

According to Hartup[14], three friendship dimensions contribute to adolescent adjustment. The first dimension is the mere presence of friends. Social isolation or friendlessness might bring about the kind of negative consequences that friended adolescents are likely to avoid. Yet, the possible occurrence of negative pressures from deviant friends raises the question: Are some youths better off friendless than having deviant friends? From this perspective, Hartup's second dimension – the characteristics of one's friends (their "identity") – is relevant. Beyond the presence and characteristics of friends, this author proposed one last dimension: friendship quality. Many aspects of friends' interactions influence

the extent to which a friendship can fulfill adolescents' socioaffective needs. Bukowski et al.[15] identified five qualities of friendships: companionship, conflict, help/aid, security, and closeness. Just as having friends does not guarantee more positive outcomes than being friendless, high quality friendships do not always contribute to youth adjustment, because friendship quality may strengthen the influence of maladjusted peers.

Small-group Dynamics

Bullying. Smith et al.[16] defined *bullying* as intentional and repetitive aggressive behavior from one person that causes harm to a vulnerable peer. Bullies may engage in physical, verbal, or relational (social) aggression. Female bullies are more likely to use social aggression (rejection, isolation), whereas male bullies more often use physical aggression[17,18]. Bullying is not a merely dyadic phenomenon; bystanders also have important roles to play in this social dynamic. Bystanders can be assistants and reinforcers of the bully, defenders of the victim, or simply passive[19]. Individual and peer group characteristics influence the likelihood that bystanders will or will not intervene in favor of the victim[10,20].

Cliques. Individuals who get along and who share similar attributes tend to coalesce in small, informal groups of peers whom they interact with frequently and whom they know well. These groups are known as *friendship cliques*[21]. They include about three to 10 individuals, often with different hierarchical statuses (e.g., leaders, peripheral members). In turn, each clique has a specific status in the broader peer group[22]. In early adolescence, cliques are relatively exclusive and most often segregated by gender. They are a major context of socialization until middle to late adolescence, when they become more inclusive, heterosexual, and looser, and then eventually dissolve, leaving room for relationships that are more adaptive to the social demands of emerging adults[23].

Status in the Larger Peer Group

A major distinction between dyadic or small-group versus large-group dynamics is the amount of control that youths have over these phenomena. Friendships and small-group experiences arise from interpersonal interactions that afford more direct control. In larger networks, perceptions, opinions, and feelings that individuals have about other members can be based on information obtained indirectly rather than through direct interactions. It can be difficult for students to change their social status or reputation, which can be distressing if one believes that others' perceptions of oneself are negative or if these perceptions are the basis for unwanted interactions, such as bullying.

Sociometric assessments of children's and adolescents' feelings toward their peers have been available for a long time[24]. There exist two main dimensions of social perception: social preference, that is, the group's overall positive or negative feelings toward an individual and social impact, that is, the salience of the individual within the peer group[25,26]. Social preference is computed as the difference between like-most and like-least peer nominations, whereas social impact is based on the total number of peer nominations. High-impact individuals are either popular (high levels of liking by peers), rejected (high levels of disliking), or controversial (high levels of both liking and disliking). Average-impact youths are positively appraised by their peers, but their social impact is moderate. Neglected individuals have a low social impact and are rarely nominated by their peers, so they are neither clearly liked nor disliked.

Because the meaning of the word *popular* for many adolescents is tied to social power and dominance rather than to positive feelings of group members toward an individual[27], today's researchers usually use terms such as *social acceptance* or *sociometric popularity* when referring to amount of peer liking, whereas *perceived popularity* (or simply *popularity*) is usually used to refer to peers' perception of an individual's social influence and dominance in the peer group[28].

Common Issues in Child and Adolescent Psychosocial Adjustment

During adolescence, many psychosocial issues may arise and be influenced by youths' positive and negative experiences with their peers. One type of difficulty is externalizing problems, which, according to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM)[29], include attention-deficit, disruptive, and aggressive behaviors. Many adverse consequences can result from these disorders, including delinquency, substance use, school maladjustment, and depression[30-32].

Another family of disorders includes internalizing problems, which are more likely than externalizing issues to go unnoticed, because af-

fected individuals experience them as internal distress. These problems include anxiety, depression, withdrawal, somatic complaints, and affective disorders[29]. In their review, Ollendick and King[33] noted that internalizing problems are frequent in childhood and adolescence, are often comorbid with behavior problems, and may continue until adulthood. Marcotte et al.[34] found that depressive symptoms are a stronger predictor of school dropout than are externalizing problems.

Substance use is also a rising concern as children become adolescents. The use of many substances can lead to dependence and abuse, including alcohol, amphetamine, cannabis, hallucinogens, cocaine, nicotine, opiates, and others[29]. Other substance-induced disorders include intoxication or withdrawal problems. Risks associated with substance use include risky sexual behavior, property or violent crimes, depression, suicidal ideation, school maladjustment, and suicide attempts[35-37]. Substance use problems often co-occur with externalizing problems as part of a more general syndrome of rule-breaking or impulsive behavior, or with internalizing problems, because substances are sometimes used as self-medication by individuals experiencing depression or anxiety[38].

Schooling is also an important aspect of youth psychosocial adjustment because it contributes to the development of knowledge and abilities needed to succeed in the job market, to reach a better quality of life, and to remain healthier during adulthood[39,40]. Academic adjustment consists of outcomes such as school persistence, academic achievement, and school engagement.

Risk and Protective Factors Emerging From the Peer Context

Friendlessness and social isolation

Friendless adolescents experience more emotional distress than do their friended counterparts[41-43]. Friendlessness is associated with social and academic problems, including disruptiveness, low academic performance, and fewer prosocial behaviors[42,43]. Although friendlessness can be initially caused by social and behavioral difficulties, being deprived of regular and positive interactions with a well-adapted friend can aggravate these psychosocial issues. Nevertheless, social withdrawal can protect against substance use, because access to social situations that encourage it is limited[44,45].

Friend influences

Even if youth adjustment issues initially develop from a combination of individual and family risk factors, affiliation with friends who engage in deviant activities (e.g., substance use, delinquency, school dropout) may further contribute to children's and adolescents' maladjustment, including externalizing, delinquent, and violent behaviors[46-48]; promiscuous sexual behavior[49]; and substance use[50,51]. Possible mechanisms include engagement in coercive behaviors and mutual reinforcement of attitudes in favor of deviant behavior through interaction with maladjusted peers[52]. Friends' deviant behaviors are also associated with adolescents' academic maladjustment[53,54] and depressive symptoms[47,55].

In contrast, reviews conducted by Berndt[11,56] suggest that positive friendships—for example, those with friends who enact prosocial behavior, those with a high level of intimacy, and those with a low level of conflict—are associated with better outcomes with regard to adolescents' social skills, stress management, and school adjustment. Positive qualities of the relationship with one's best friends may protect adolescents against social anxiety, internalizing problems, and externalizing problems[57,58]. Friendships characterized by companionship and recreation, validation and caring, help and guidance, intimate disclosure, low conflict and betrayal, and positive conflict resolution contribute to youths' global self-worth, self-esteem, and peer acceptance[12,58]. Positive friendships can also protect against peer victimization[59]. Adolescents' academic adjustment can be influenced by friends' grades and values[60,61].

Because high-quality relationships tend to strengthen friends' influence, this aspect of friendship is not always protective in that it can foster problem behavior, such as substance use, if it involves deviant friends[62]. Furthermore, even though closeness and intimacy are usually positive friendship features, they sometimes contribute to adolescents' depressive symptoms and aggressive behavior[63,64]. The underlying mechanism appears to be engagement in corumination, wherein friends discuss, revisit, speculate about, and focus on problems and negative feelings[65].

Small-group processes

In line with findings related to friendships, the impact of small-group processes depends on group members' characteristics. Salmivalli et al.[19] showed that adolescents' bullying behavior was

more strongly predicted by their friendship group's characteristics than by their own traits[66]. Weapon carrying and relational aggression tend to increase as a result of friendship group influences[67,68]. In addition, college students who are exposed to school dropouts through their social network are more likely to drop out of school as well[69].

Tobacco use behavior appears to influence friendship selection to a greater degree than it is learned from the group[70,71]. Nevertheless, teenagers' smoking may be an imitation of the behavior observed in a clique that one wants to join, which can be an indirect form of peer influence[70,72]. In contrast, alcohol use tends to increase after joining a peer group in which this behavior is normative[63,73].

Small-group processes can also reinforce positive outcomes. According to Ryan[74], school adjustment can be socialized within friendship groups. Barber et al.[75] suggest that by engaging in extracurricular activities, adolescents can develop a positive identity and healthy behaviors by learning positive norms from the peer group they integrate; however, some extracurricular sports may involve exposure to risky behavior.

Belonging to a friendship clique can be more risky for boys than for girls. If clique membership protects young adolescents against internalizing symptoms, it also facilitates the emergence of externalizing behavior among boys[76]. Similarly, peer group membership is related to positive behavioral, academic, and social outcomes for girls, but not for boys.

Bullying is one specific type of small-group dynamics that is particularly concerning for all parties involved. Bullies, victims, and bully-victims experience health, emotional, social, and academic problems[77]. Bullies are more likely to carry weapons and use alcohol; victims experience poorer relationships with classmates, loneliness, low self-worth, and academic maladjustment[78,79]. Solberg and Olweus[80] found that victimization may affect other areas of peer experiences, including feelings of social acceptance and belonging, and it predicts negative self-evaluation and depressive symptoms.

Social status in the larger peer group

Results from many studies that included measurement of peer rejection, externalizing problems, and academic maladjustment suggest that these three areas of adjustment are interrelated[81,82]. One explanation is that aggressive adolescents are at higher risk of becoming rejected, and peer rejection precipitates academic failure[83]. Peer rejection is also linked to substance use by late adolescence as part of a developmental cascade that involves parenting issues and deviant peer affiliations[84,85]. Outcomes of social exclusion can be quite different depending on individuals. For example, exclusion can increase symptoms of depression and anxiety in some adolescents[82,85]. One possible mechanism could be that negative peer involvement increases self-doubt and decreases self-esteem[86].

On the opposite end of the social status spectrum are adolescents who experience high levels of social acceptance; these youths are rated as well adjusted by their classmates and teachers[81]. For those adolescents who have a negative relationship with their parents, peer acceptance can protect against drops in self-esteem[87]; it can also protect against friends' encouragement to use alcohol or to engage in delinquent behavior[88]. Peer acceptance is associated with less loneliness and greater academic achievement[89]. Because accepted students receive more support, develop better social skills, and have a greater sense of belonging to the school, they more often experience positive outcomes[90].

Whereas the picture tends to be generally positive for socially accepted students, perceived popularity in the peer group has been linked to mixed outcomes, probably because popular teenagers are especially sensitive to inductive peer norms that they need to follow to maintain a high social status. When these norms are deviant, it can lead to problem behavior. Popularity has been linked to risks of substance use, sexual activity, and academic problems[91-93]. Popular adolescents are likely to engage in direct and indirect aggression and in rule-breaking behaviors (substance use, minor delinquency) to maintain their social status[94,95]. Popular adolescents exhibit higher levels of externalizing problems, and popular boys present fewer internalizing problems—perhaps because they value dominance, and being popular makes them feel successful[96]. Nevertheless, popular adolescents have access to a wider range of socialization experiences, which can contribute to enhancing their understanding of others and of social situations[94]. Subgroups of "high-status" and "well-liked" preadolescents who are very socially skilled[97] could play an important role in the peer group through positive leadership.

Discussion

Peer influences do not occur in a vacuum. Governmental and school-specific regulations that influence school structures, academic curricula, and the composition of the student population may contribute to influencing students' peer experiences to become either risk or protective factors. To illustrate this argument, we present a few examples from the Québec school system.

Peer influences in the context of the Québec school reform

In the 1990s, the Québec Ministry of Education initiated a reform of the education system, and since 2001 significant pedagogical changes have been implemented in elementary and secondary schools[98]. The main goal of the reform was to strengthen students' ability to develop applied skills and their overall level of academic success[99]. This reform was in large part inspired by a socio-constructivist educational approach, which emphasizes the development of cross-curricular skills and autonomous learning[100]. Although this reform has been questioned and criticized by many[101], we argue that at least one positive consequence of the new pedagogical strategy is worth considering, that is, its likely contribution to the improvement of students' peer experiences and social skills.

According to the socio-constructivist approach, learning is a social and interpersonal process; therefore, collaborative peer interactions under the supervision and guidance of a teacher can promote not only the construction of knowledge, as intended by the new program, but also the development of students' social skills[100]. Teamwork promoting collaboration instead of competition or exclusion is an example of what socio-constructivism puts forward. Our goal here is not to take a position for or against the reform of Québec's education system. Instead, we encourage decision makers and school administrators around the world to consider the value of purposefully integrating activities within the academic curriculum that will contribute to developing a positive school climate and to strengthening children's and adolescents' social skills. Such improvements should be explicitly considered when assessing the quality and outcomes of academic curricula.

Accessibility to private schools in Québec and its impact on peer group composition

Another example from the Québec educational system is students' easier access to private schools and the impact of this situation on the student body composition in various schools. The government of Québec financially supports about 50% of private education, making it affordable for a large number of families to send their children to private schools rather than public schools[102]. Private schools offer interesting academic achievement opportunities and as such, they compete aggressively with public schools[103]. The result is that less money is allocated per student in public schools, which ultimately may negatively affect student performance. In addition, because middle-class parents can afford to send their students to private schools, and because private schools do not tend to have many students with learning disabilities[104], public schools are faced with the task of educating a particularly disadvantaged and at-risk student population, especially in urban settings[105]. This is quite problematic in light of results from empirical studies that have shown that classmates' socioeconomic status influences student achievement more than their own status does[106]. We suggest that contagion of potentially harmful social norms among public school students who may have lower academic ambitions than their peers from a wealthier, more educated background could be one of the mechanisms explaining such findings. Decision makers should therefore be aware that political choices that influence the composition of student populations in various schools can create gaps in the quality of the learning environment offered to students from lower versus middle to higher social classes. The resulting disparity in academic gains made by students from the two systems is probably not entirely due to differences in financial or human resources in the schools – it is likely influenced by lack of access to positive peer influences in public schools.

The last point of discussion is more universal and optimistic: We suggest that positive peer leaders can play the role of protective factors in the context of any geographical region, school curricula, or school type. The existence of natural leaders within adolescent peer groups is a notion that makes sense theoretically[107], and it is supported by empirical research[26]. Positive social in-

fluence is likely to be quite efficient when channelled through existing peer leaders, and several programs have successfully promoted adolescent physical health (less drug use, better nutrition, less risky behavior in relation to HIV transmission) by using peer leaders to spread positive norms and behaviors[108-110]. Interestingly, Valente et al.[111] found that peer-led programs are especially efficient when they are guided by youths who are identified through social network analysis as peer leaders in the program. Nevertheless, a more recent study suggested that using peer leaders to discourage substance use may be counterproductive when targeting adolescents who are exposed to deviant peer norms about substance use[112]. Mixed findings have also emerged with regard to outcomes of a peer-led antibullying program[113]. Peer-led programs are promising, but they should be carefully monitored for potentially iatrogenic effects before they are scaled up and disseminated to other milieus.

Conclusion: Summary and Implications

Peer experiences in adolescence are quite heterogeneous. In the context of friendship, large-group processes, or small-group dynamics, both protective and risk factors can emerge. Peer experiences within and across various levels of social complexity are likely to interact; thus, when one looks at a single aspect of an adolescent's social experience, it is difficult to predict whether he or she is at risk for maladjustment. Adults who work with youths may help protect them against negative peer influences by reinforcing respectful and prosocial behaviors in natural settings, such as the context of collaborative learning in the classroom. If negative peer influences often reinforce issues that emerged from problematic family dynamics, peers can also play a protective role when positive norms and values are reinforced by the peer group as a whole and by positive peer leaders in particular.

Collaborations

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