The Relationship Between Indirect Aggression and Loneliness for Emerging Adults: What Does Interpersonal Competence Have to Do with Wellbeing?

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The present study investigated the mediating role of interpersonal competence in the relationship between indirect aggression and loneliness for emerging adults. One hundred and sixty-seven Canadian undergraduate students aged 18-25 participated and completed an anonymous, online survey. Structural equation modeling was used to analyze the mediating role of interpersonal competence in the relationship between indirect aggression and loneliness. The findings revealed that interpersonal competence mediated the relationship between indirect aggression for targets and loneliness. These findings have implications for mental health researchers and practitioners and can inform the development of prevention and intervention programs for young adults dealing with indirect aggression.

La présente étude porte sur le rôle de médiation de la compétence interpersonnelle dans le lien entre l'agression indirecte et le sentiment de solitude chez les adultes émergents. Cent soixante-sept étudiants canadiens de premier cycle et âgés de 18 à 25 ans ont complété un sondage anonyme en ligne. Nous avons eu recours à la modélisation par équation structurelle pour analyser le rôle de médiation de la compétence interpersonnelle dans le lien entre l'agression indirecte et le sentiment de solitude. Les résultats indiquent que la compétence interpersonnelle joue un rôle de médiation dans le lien entre l'agression indirecte et le sentiment de solitude. Ces résultats ont des implications pour les chercheurs et les praticiens en santé mentale et ils peuvent contribuer à l'élaboration de programmes de prévention et d'intervention visant les jeunes adultes aux prises avec l'agression indirecte.

Post-secondary is a time when students are at a high risk for experiencing mental health issues (Bozkurt, 2004; Brandy, Penckofer, Solari-Twadell, & Velsor-Firedrich, 2015; Burris, Brechting, Salsman, & Carlson, 2009). The developmental life stage from late adolescence to early adulthood (ages 18-25) referred to as emerging adulthood is a time when early symptoms of mental health problems most often emerge (Mental Health Commission of Canada, 2019). Part of understanding university students' wellbeing comes with examining the quality of everyday social functioning. The relationship between aggression and psychosocial functioning is present in samples of children and adolescents. Children who exhibit aggression are more likely to be at risk for experiencing difficulties with social and emotional adjustment, including higher levels of

depression, loneliness, peer rejection and isolation (Crick & Grotpeter, 1995; Prinstein, Boergers, & Vernberg, 2001). Children with lower social competence display more aggressive behavior and experience increased emotional and mental health problems (Speckens & Hawton, 2005; Sukhodolsky, Smith, McCauley, Ibrahim, & Plasecka, 2016). Similarly, individuals who are exposed to aggression as victims also suffer from psychosocial difficulties (e.g., loneliness) (Lundh, Daukantaité, & Wångby-Lundh 2014) and lower social competence (Champion, Vernberg, & Shipman, 2003). The association between aggression and psychosocial functioning and wellbeing in young adults has been less studied.

One indicator of psychosocial functioning is perceived loneliness. During emerging adulthood, specific situations (e.g., economic migration), social factors (e.g., being rejected by a peer group or family), or even personality traits can contribute to loneliness (Domagala-Krecioch, & Majerek, 2013). The developmental course of adjustment difficulties and psychosocial functioning (e.g., loneliness, depression, and self-esteem) is linked to personality traits including extraversion, agreeableness and emotional stability in later adolescence (Vanhalst, Goossens, Luyckx, Scholte, & Engels, 2013). Yet, there is a paucity of research that has examined how personal abilities (e.g., interpersonal competence) can mediate the relationship between the perpetration and experience of aggression and psychosocial outcomes such as loneliness in university-aged emerging adults. Emerging adults are at a stage where they are preparing to enter the job market and as a result require high levels of social interaction. Since post-secondary institutions are educational spheres that encourage students to work collaboratively and promote social interactions, it is important to understand the implications and effects of interpersonal skills. Additionally, students with high interpersonal competence possess aptitude and the resources needed to excel in education and career settings as young adults (Csikszentmihalyi & Schneider, 2000). Similarly, institutions that offer extracurricular activities provide students with opportunities to develop interpersonal skills that are associated with educational attainment in young adults (Mahoney, Cairns, & Farmer, 2003). However, there is little research on emerging adulthood and psychosocial functioning to draw upon.

Defining Loneliness, Aggression and Interpersonal Competence

Loneliness

Loneliness is a distressing experience that may be perceived as a person's social relationships to be less in quantity and quality than desired and can be further be conceptualized as some form of social relationship deficit (Hawkley et al., 2008). Different views help us understand the concept of loneliness. For example, attachment theory emphasizes the importance of emotional bonds which stand as a forerunner to contemporary theories of loneliness. Children with insecure attachments may not be capable of developing healthy attachments which can hinder their social skills, increase their distrust and foster loneliness. Other perspectives include a cognitive approach to loneliness which characterizes differences in perceptions and attributions where individuals may have a pessimistic outlook on life. Furthermore, loneliness has been correlated with personality traits of hostility and distrust which hampers an individual's ability to interact skillfully (Hawkley, Thisted, Masi, & Cacioppo, 2010).

Aggression

There are several definitions of aggression, yet most definitions identify two key properties: the intention of perpetrators to harm and the recipients of the aggressive actions (victims) who feel harmed (Archer & Coyne, 2005). Basically, there are two broad categories of aggression: direct and indirect aggression. Direct aggression includes physical and verbal outbursts with the intention to harm while indirect aggression consists of manipulation of the social structure to inflict pain on an individual (Björkqvist, Lagerspetz & Kaukiainen, 1992).

Interpersonal Competence

Interpersonal competence is distinguished between two approaches: task domains (e.g., initiating conversations and refusing unreasonable social demands) and behavioral skills that determine effective social interaction within the different task domains (e.g. abilities required to decode non-verbal communication). The task domains of interpersonal competence including initiation, negative assertion, disclosure, emotional support, and conflict management are closely associated with psychosocial functioning (Buhrmester, Furman, Wittenberg, & Reis, 1988). Each of these task domains contributes uniquely to success in establishing and maintaining different types of social interactions and relationships. We are interested in investigating the mediating role of interpersonal competence as a global construct defined by these different domains.

Interactionist Theories of Aggression

The study is grounded in a social interaction theory of aggression. Early social interactions are necessary for the attainment of interpersonal needs and proper social development (Buhrmester & Furman, 1986). Rubin and Rose-Krasnor's (1992) social information processing model of social competence highlights that achieving goals are part of social interactions and the strategies used are adaptive in maintaining positive relationships. Individuals are often confronted with social dilemmas and how they deal with those interpersonal dilemmas influences their acceptance in the social world. For example, individuals may develop negative self-perceptions of competency when faced with repeated failures in trying to attain a goal. This may lead to frustrations and promote maladaptive responses such as aggression. Consequently, socially unacceptable means of achieving goals may lead to peer rejection or a lack of supportive social relationships (Rubin & Rose-Krasner, 1992). These patterns of behaviors and types of peer relationships show continuity from childhood to early adulthood (Lansford, Yu, Pettit, Bates, & Dodge. 2014). Relationships characterized by interpersonal exchanges of ideas, perspectives and actions promote social cognition and social skills. Piaget (1926) suggests that intellectual thought and (interpersonal) behavior evolves through the experience of discussions, negotiation and conflicts. The ability to develop social cognitive skills influences social relationships, which are imperative to well-being and psychosocial functioning. Hostile interpretations of cues in social relationships have been investigated (Crick, 1995). It has been found that hostile attribution biases (i.e. a type of hostile world view) are associated with relational aggression in emerging adults (Bailey & Ostrov, 2008). More so, research shows that hostile attributions are a significant mediator for relational provocations (e.g. possible relationship conflicts) in emerging adults of age 18-25 years (Ostrov, Hart, Kamper, & Godleski, 2011).

Aggression and Loneliness

Higher levels of aggression are associated with self-reported loneliness (Boivin & Hymel, 1997; Prinstein. Boergers, & Vernberg, 2001; Schinka et al., 2013). Research demonstrates that from a young age, individuals who are aggressive tend to display less prosocial behavior, which alienates them from their peers (Sebanc, 2003). Consequently, these individuals may experience increased social rejection and loneliness (Crick & Grotpeter, 1995). Similarly, a link between relational aggression and loneliness has also been established in the adolescent population (Soenens, Vansteenkiste, Goossens, Duriez, & Niemiec, 2007). During adolescence, friendships are more intense and intimate, and there is an increase in relational aggression (Voulgaridou & Kokkinos, 2015). This form of aggression may elicit negative emotions in peer relationships that may lead to greater feelings of loneliness.

Nonetheless, existing literature on the relationship between aggression and loneliness is unclear. Research demonstrates that individuals who aggress are also considered more popular and with higher status among peers thus having a larger social network (Andreou, 2006; Pellegrini, Bartini, & Brooks, 1999). It may be that aggressive individuals who display poor interpersonal skills may have conflict with peers and as a result experience isolation and loneliness. From this perspective, it is an individual's interpersonal competence that will mediate that relationship between aggression and loneliness. Less is known about the associations between aggression and loneliness during emerging adulthood. Developmentally, emerging adults may have better perspective-taking skills, refined or higher-level social skills, and the ability to understand social interactions. They are capable of developing higher quality friendships and companionship (DeSousa & Cerqueira-Santos, 2012). However, if they do not possess these advanced social skills and abilities then they may have challenges navigating relationships. There is a lack of research that investigates the association between indirect aggression and loneliness in emerging adults and more specifically the mediating role of interpersonal competence.

Developmental Aspects of Aggression and Interpersonal Competence

Childhood and Adolescence

The early childhood literature demonstrates a link between children's social competence and their perpetration of aggression (Chen, Huang, Chang,Wang, & Li, 2010). Social cognitive perspectives on aggression maintain that children and adolescents with stronger social problem-solving abilities (e.g., generating solutions) are more effective at finding strategies when confronted with a problem, and are subsequently less likely to engage in aggressive behavior.

However, as individuals mature there appears to be a change in the relationship between social competence and aggressive behavior. With social maturation, children's indirect aggression becomes more sophisticated and refined which has been associated with greater social intelligence skills (Kaukiainen et al., 1999). Young adolescents who are more socially skilled than children also can display more aggressive behavior, however, there is a shift in the observed type of aggression. For example, developmental models of aggression demonstrate that children proceed from using direct aggression (e.g., fighting, hitting, slapping) to indirect forms of aggression (e.g., relational and social manipulation) as they develop better verbal skills (Björkqvist, Lagerspetz, & Kaukiainen , 1992). In part, this may be due to direct aggression

becoming less socially sanctioned during late adolescence or young adulthood and the higher social costs attached to it.

Adulthood

Research on indirect aggression shows that social manipulation, covert-insinuative aggression (i.e., perpetrator hides his/her aggressive intentions by applying strategies) or rational-appearing aggression (i.e., wrapping aggressive intentions into normal communication to disguise their harmful implications) are more circuitous and refined forms of aggression that tend to hide malicious intent and become more evident in the workplace (Kaukiainen et al., 2001). To date, few studies have investigated indirect aggression in young adults (Leenaars & Lester, 2011). Emerging adulthood represents a distinct developmental period between adolescence and full-fledged adulthood (i.e., between 18 and 25 years of age). Since there are developmental changes in how aggression manifests itself over time, emerging adulthood represents a unique developmental phase from which to explore those processes that lead to psychological maladjustment for aggressors and victims.

The Relationship Between Aggression, Interpersonal Competence and Loneliness

The association between aggression and psychological maladjustment, specifically loneliness is well documented (Kawabata, Crick, & Hamaguchi, 2010; Leff, Waasdorp, & Crick, 2010; Prinstein, Boergers, & Vernberg, 2001; Schinka et al., 2013). However, we still do not know how interpersonal skills can mediate this relationship. Individuals who are aggressive may exhibit poor social skills, which can increase their likelihood of social rejection and isolation, and consequently contribute to feelings of loneliness. Alternatively, certain aggressive individuals can also be socially competent. For instance, in a sample of fourth and fifth grade students, relational aggression was found to be positively associated with cognitive aspects of intelligence and perceived popularity (Andreou, 2006). Studies on bullying have demonstrated that students who engage in bullying can be popular among their peers and have higher social status (e.g., de Bruyn, Cillessen, & Wissink, 2009). This suggests that they may be perceived as having more friends and socially skilled. Consequently, having more friends increases their opportunities to become more socially skilled in their social interactions.

Contrarily, individuals who are victimized are often rejected by peers and also less socially competent (Nangle, Erdley, Newman, Mason, & Carpenter, 2003; Pellegrini et al., 1999). Fox and Boulton (2005) investigated whether victims were regarded as having poorer social skills. In their study of 330 students aged 9-11 years, they found that social skill items discriminated between victims and non-victims. Victims were rated as displaying non-assertive and provocative behavior as well as solitary and engaged in less social conversation. Some consequences for individuals with low peer acceptance are that they have reduced opportunities for interpersonal communication, social skills development and a lack of influence in their social environments which makes them vulnerable to victimization (Stumpe, Ratliff, Wu, & Hawley, 2009). Research examining the mediating effects of social cognitive processes shows that physical and relational victimization may bias adolescents' cognitions, which in turn can affect and contribute to feelings of depression, sadness, anxiety, and anger (Hoglund & Leadbeater, 2007).

The different domains of interpersonal competence help elucidate the association between

indirect aggression and psychosocial functioning for aggressors and victims. For example, conflict management involves the skill of compromise, negotiation, and mitigation is often associated with less discord in friendships (Chow, Ruhl, & Buhrmester, 2013) while initiation skills may promote positive interactions. Hence, a lack of these skills can lead to reduced affiliations and increased feelings of loneliness. The present study aims to investigate the mediating role of interpersonal competence (as a construct of these domains) between indirect aggression and emerging adults' psychosocial well-being.

Goals of the Present Study

Little or no research has examined how interpersonal competence might mediate the relationship between indirect aggression for aggressors and targets and their experiences of loneliness in an emerging adulthood population. Thus, this is a novel contribution in the field. First, we investigate whether a relationship exists between indirect aggression (for targets and aggressors) and loneliness for emerging adults. Second, we examine whether interpersonal competence (measured by initiation, negative assertion, disclosure, emotional support, and conflict management) mediates the relationship between indirect aggression and loneliness among emerging adults (Figure 1). The research questions are as follows:

1. Does indirect aggression for aggressors and targets predict loneliness in emerging adults?

2. Does interpersonal competence mediate the relationship between indirect aggression (for aggressors and targets) and loneliness?
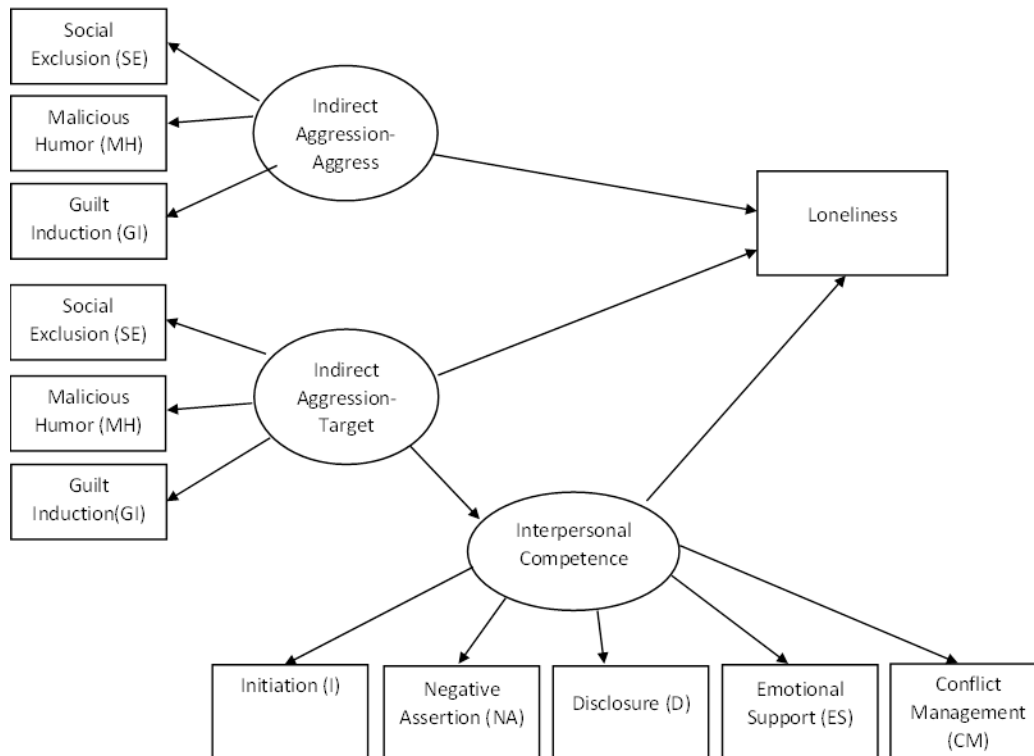

Figure 1. Mediating effects of interpersonal competence between indirect aggression and loneliness

Method

Participants

A total of *N*=167 undergraduate students (128 female and 39 male) participated in this study. All participants were university students enrolled in an undergraduate program at a large urban Canadian university. The majority of participants (83%) identified were 18-24 years old. Seventy-eight percent of the participants self-identified as from Caucasian descendant and reported English as their first language. Seventeen percent did not provide an age and twenty-two percent did not identify themselves.

Measures

Loneliness. The UCLA Loneliness Scale (Version 3) (Russell, 1996) is a 20-item scale designed to measure one's subjective feelings of loneliness and social isolation. Each item is measured using a 4-point Likert scale (1 = never, 4 = always). Higher scores indicate higher ratings of loneliness and social isolation. Participants were asked to rate items (e.g., "How often do you feel that you lack companionship?"). The UCLA measure has high reliability and validity with a published internal consistency coefficient (.89 to .93) and test-retest reliability over a one-year period (r = .73) (Russell, 1996). The UCLA scale has demonstrated convergent validity and is significantly correlated with other measures of loneliness. Construct validity is also supported by significant relations with measures of the adequacy of an individual's interpersonal relationships, and by correlations between loneliness and measures of health and well-being (Russell, 1996). A reliability analysis was carried out with the present sample. The Cronbach's alpha showed the questionnaire to reach high reliability, α = .94.

 Indirect aggression. The Indirect Aggression Scale (IAS) (Forrest, Eatough, & Shevlin, 2005) is a 25-item scale used to measure adult indirect aggression for both aggressors [IAS-A] and targets [IAS-T]. Indirect aggression is classified by three categories: social exclusion, malicious humor, and guilt induction. The IAS thus includes these three subscales. The Social Exclusion subscale includes ten items (e.g., "purposefully left them out of activities"), the Malicious Humor subscale has nine items (e.g., "used sarcasm to insult them") and the Guilt Induction subscale has six items (e.g., "used my relationship with them to try and get them to change a decision"). Each item is measured using a 5-point Likert-type scale (1 = never, 2 = once or twice, 3 = sometimes, 4 = often, 5 = regularly). Higher scores indicate that individuals are rated higher on the specific attribute being measured by the subscale. Participants completed both scales (IAS-T and IAS-A). The published reliability for each of the subscales of the IAS-A and IAS-T is acceptable. The Cronbach's alpha for Social Exclusion is α = .82 (IAS-A) and .89 (IAS-T); Malicious Humor α = .84 (IAS-A) and .87 (IAS-T); and Guilt Induction α = .81 (IAS-A and IAS-T). The internal consistency for IAS-A in this study is good with Social Exclusion α = .88, Malicious Humor α = .91, and Guilt Induction α = .81. For the IAS-T, the internal consistency is also good, Social Exclusion α = .90, Malicious Humor α = .90, and Guilt Induction α = .85.

 Interpersonal competence. The Interpersonal Competence Questionnaire (ICQ) (Buhrmester, Furman, & Wittenberg, 1988) was used to measure participants' perceptions of their own skill at handling social situations. The ICQ is a 40-item questionnaire intended to

measure competence in five interpersonal task domains: *Initiation* (initiating relationships), *Negative Assertion* (asserting displeasure with others), *Disclosure* (disclosing personal information), *Emotional Support* (providing emotional support and advice), and *Conflict Management* (dealing with interpersonal conflict). Each interpersonal domain is comprised of eight items. ICQ items consist of short descriptions of common interpersonal situations (e.g., "Asking or suggesting to someone new that you get together and do something"; "telling a companion you don't like a certain way he or she has been treating you"). Participants rate each item on a 5-point scale indicating their level of comfort and competence in dealing with the situation. Higher ratings indicate greater competence.

The ICQ yields five subscale scores (i.e., Initiation, Negative Assertion, Disclosure, Emotional Support, and Conflict Management), as well as a total score representing general social competence. The five factors of this scale were supported using a confirmatory factor analysis, and test-retest reliabilities ranged from .69 to .89 (Buhrmester et al., 1988). In the present study, the reliability coefficients were moderate to high: Initiation, .88; Negative Assertion, .83; Disclosure, .85; Emotional Support, .91; and Conflict Management, .76.

Procedure

Participants were students recruited from a university sample from an urban Canadian university. They were enrolled in second-year undergraduate courses and received course credit for participation in the study (up to 5% of grade for completing surveys). Prior to any data collection, ethical approval from the University research ethics board was obtained. Data were collected using an online survey via Fluid Surveys. Participants accessed the online survey through the Research Participation System and were presented with informed consent prior to beginning the survey.

Results

Preliminary Analyses

Descriptive statistics are presented in Table 1. Factors for the latent variable indirect aggression for aggressors and targets were significantly correlated, indicating that they were measuring related aspects of indirect aggression. There was one case of missing data, which is less than 0.1% and therefore removed from the sample. The variables were slightly skewed therefore robust maximum likelihood estimation was used to handle skewed data when running structural equation models to test our research questions.

Structural equation modeling using MPlus Version 7 was used to run the model for our proposed research questions. In our model, indirect aggression for aggressors and targets were latent variables inferred by three measurable factors i.e. social exclusion, malicious humour, and guilt induction. Interpersonal competence was a latent variable inferred by five measurable factors including initiation, negative assertion, disclosure, emotional support and conflict management. Loneliness was a continuous observable variable. We conducted a structural equation model investigating the direct and indirect relationship between indirect aggression (for aggressors and targets) and loneliness with interpersonal competence as s mediating variable (see Figure 2). We used a maximum likelihood estimator with a bootstrap approach to confirm our findings.

Table 1

Relations and Descriptive Statistics

| Variables	1	2	3	4	5	6	7	8	9	10	11	12
Indirect Aggression—Aggressors												
Social Exclusion	-											
Guilt Induction	.731**	-										
Malicious Humor	.638**	.614**	-									
Indirect Aggression—Targets												
Social Exclusion	.382**	.304**	.279**	-								
Guilt Induction	.390**	.395**	.592**	.700**	-							
Malicious Humor	.446**	.455**	.399**	.672**	.757**	-						
Loneliness	.224**	.227**	.183*	.442**	.336**	.376**	-					
Interpersonal Competence												
Initiation	.033	.023	.031	-.115	-.112	.012	-.526**	-				
Negative Assertion	-.073	-.058	.012	-.218**	-.180*	-.195*	-.503**	.536**	-			
Disclosure	-.042	-.036	.011	-.144	-.137	-.147	-.462**	.534**	.662**	-		
Emotional Support	-.139	-.096	-.158*	-.091	-.060	-.019	-.284**	.336**	.389**	.425**	-	
Conflict Management	-.222**	-.272**	-.146	-.210**	-.149	-.161*	-.348**	.325**	.443**	.438**	.605**	-
MM	13.73	9.49	13.73	17.13	16.04	10.39	47.94	25.11	25.37	25.44	32.31	28.3
SD	4.59	3.42	5.47	7.51	7.38	4.53	11.75	6.46	5.61	6.09	5.13	5.33

** $p < .01$; * $p < .05$
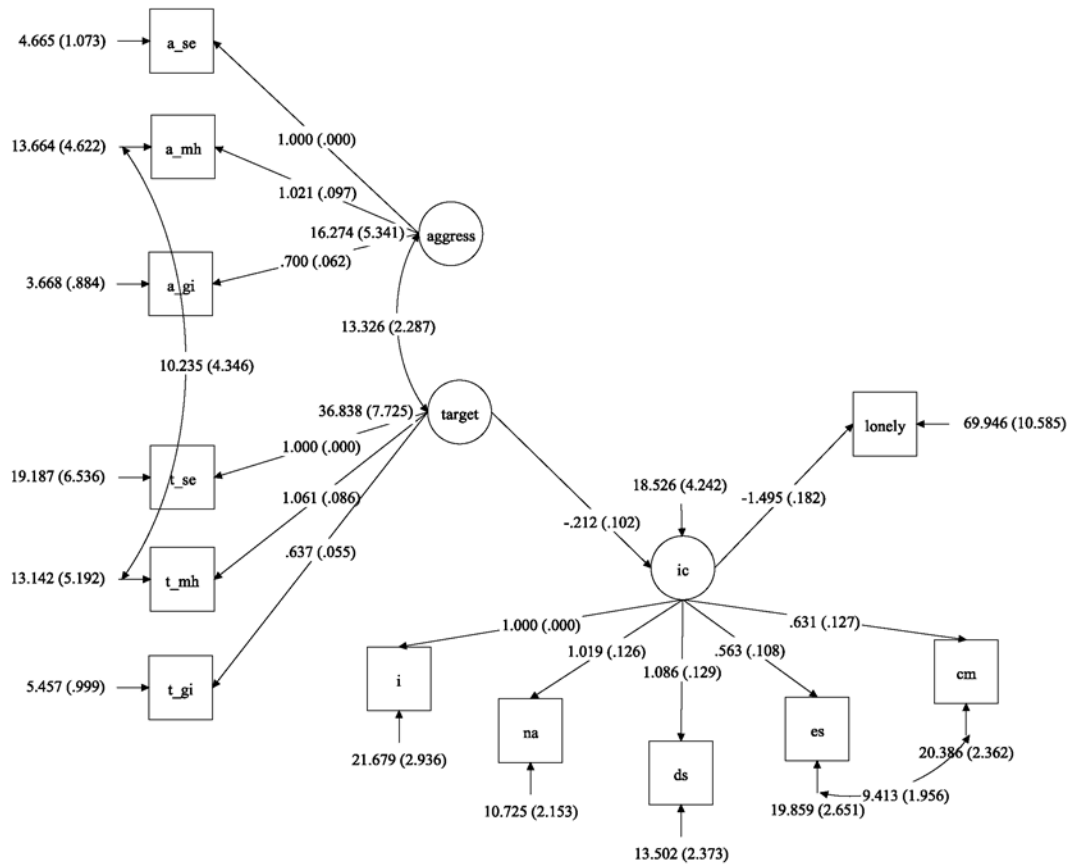
Figure 2. A mediational model of indirect aggression for targets and aggressors predicting loneliness with interpersonal competence as a mediating variable.

The model proved to be a good fit, χ2 (47) = 83.87, *p* < .001; RMSEA = .069; CI= [.044, .092]; CFI = .964; SRMR = .054. The model showed that the latent constructs of indirect aggression for aggressors and targets was significant β = 13.33 *p* < .001. Malicious humour for targets and aggressors was also significant β = 10.24, *p* < 0.01, which may be due to the similarity of questions for targets and aggressors. Emotional support and conflict management factors of interpersonal competence, β = 9.41, *p* <.001 was significant. A reason for this may be that items for both these subscales involve individuals being able to listen to others, take on a different perspective, and also demonstrate empathy.

For our first research question investigating the relationship between indirect aggression and loneliness, the results revealed the direct relationship between indirect aggression for targets and loneliness, β = .46, *p* =.05 and for aggressors and loneliness β = .31, *p* =.30, *ns.*

We proceeded to investigate whether interpersonal competence mediates the relationship between indirect aggression and loneliness. The indirect effect between indirect aggression and loneliness for aggressors was not significant β = -0.05, *p*=.48, *ns*, 95% CI = [-.41, .67], indicating that interpersonal competence did not mediate the relationship between indirect aggression and

loneliness for aggressors. The results showed that the indirect effect between indirect aggression and loneliness for targets was significant, β = .16, p < .05, 95% CI = [.014, .290]. The relationship between interpersonal competence and target was significant, β = -.212, p < .05, as well as, interpersonal competence and loneliness, β =-1.50, p<.001. These results suggest that interpersonal competence mediates the relationship between indirect aggression for targets and loneliness, however not for aggressors and loneliness. Approximately 6% of the variance in loneliness was accounted for by indirect aggression.

Discussion

Previous research has demonstrated that aggressors and victims of indirect aggression are more likely to be at risk for psychosocial maladjustment and dysfunction, including perceived loneliness (Boivin & Hymel, 1997; Prinstein et al., 2001; Schinka et al., 2013). However, the link between indirect aggression, interpersonal competence, and perceived loneliness in emerging adulthood has not been established in the literature. Our first research question examined whether indirect aggression is associated with perceived loneliness. Our findings revealed that a direct relationship between indirect aggression and loneliness for aggressors was not significant, however almost reaching significance for targets. Individuals who scored higher as targets of indirect aggression also had higher scores on perceived loneliness which is consistent with previous research with children and adolescents (e.g., Crick & Grotpeter, 1995; Prinstein et al., 2001). Victims of indirect aggression are often more socially withdrawn and rejected by peers, which may lead to loneliness (Nangle et al., 2003; Pellegrini et al., 1999). Our results did not confirm a relationship between individuals who scored higher on the aggressor scale for indirect aggression and perceived loneliness. Findings in the literature for individuals who perpetrate or aggress are mixed. For example, some subgroups of people who engage in bullying as perpetrators are often considered more popular (than victims) and have higher social status among their peers (Andreou, 2006; Pellegrini et al., 1999). This may suggest that these individuals (who aggress and are more popular) may have more social support, are perhaps more socially skilled and therefore less likely to experience loneliness.

The second aim of this study was to examine whether interpersonal competence mediated the relationship between indirect aggression and loneliness. We found that the relationship between indirect aggression and loneliness was mediated by interpersonal competence for targets of indirect aggression. Emerging adults who scored higher on the target scale also scored lower on interpersonal competence and higher on loneliness. Previous literature demonstrates that children with less opportunity for interpersonal communication and social skills development are vulnerable to victimization (Stumpe et al., 2009). According to Rubin and Rose-Krasnor's (1992) social competence model, strategies used in achieving goals in social interactions help maintain positive relationships. Therefore, individuals who lack these skills or competent abilities may not be able to maintain positive relationships and have less social support, which can lead to increased feelings of loneliness.

We defined interpersonal competence by factors that included initiation, emotional support, and conflict management as having the highest predictive value. These are essential skills that are developed through social interactions, which in turn help develop better relationships. Since targets of aggression are more likely to be excluded and rejected by peers, they have fewer opportunities for interactions that may be necessary for enhancing social skills and experiencing social wellbeing. Social competence is potentially a protective factor against perceived

loneliness, thus youth with poor social competence may be more likely to experience loneliness (as suggested by our findings). There was no evidence for any relationship between interpersonal competence and loneliness for aggressors of indirect aggression. It is possible that with an adult population, aggressors are more likely to have more sophisticated social intelligence and social skills and are less likely to be rejected and experience loneliness.

The implications of these findings have theoretical and practical importance. Interpersonal competence is a globally defined concept and often used interchangeably with other terms including social competence, social skills, or social intelligence. In the present study, interpersonal competence is an overarching term comprised of five underlying factors including initiation, disclosure, negative assertion, emotional support, and conflict management. These factors increase our understanding of the behavioral and cognitive domains of interpersonal competence and how they are measured.

Social-information processing theories are often used as frameworks for understanding aggression. In the present study, there was no relationship between aggressors of indirect aggression and interpersonal competence for emerging adults. These findings contribute to theory in that deficiencies in social cognition may lead to physical responses of aggression but not to relational or social types of aggression. However, the complexity of this finding may be that an educated (university) predominantly female sample may be skilled at using social aggression or indirect aggression without suffering consequences at this stage of life (or so they believe/perceive).

At a practical level, findings have implications for the development of community programs and college counselling in the prevention and intervention for emerging adult as targets of indirect aggression. Programming can focus on fostering victims' social competence while targeting specific interpersonal task domains and skills. Following Rose-Krasnor's (1997) model, individuals may need some support in finding a balance between meeting one's own needs (self-assertion, setting personal goals) and the needs of others. As well, teaching young adults skills that help with social initiation, healthy conflict resolution, management, and emotional support can help mitigate negative psychosocial outcomes such as loneliness. As part of systemic changes, universities could consider ways of identifying indirect aggression, and embed healthy relationship messaging in existing campus-wide campaigns aimed at engaging the student population. In addition to the traditional academic slate of professional development offerings, social skill development workshops such as empathy training would help deter indirect aggression and may be offered by student services. These supports and skills are important for university students dealing with adapting to a new stage of life along with new challenges and stressors.

Limitations and Future Research

The present research used a correlational design therefore the inherent constraints of this design restrict the findings to only explaining relationships between variables and does not allow for any causal conclusions. Moreover, the findings of this study are based on one-time point of data. There is a need to extend this preliminary work and conduct longitudinal and experimental research in this field. Additionally, the exclusive reliance on self-reports may pose a limitation for accuracy. Considering the nature of the variables being studied (i.e., indirect aggression and psychosocial well-being), there may be potential bias for over- or underestimating on self-reports.

The focus was on emerging adults and the demographics of the sample was predominantly Caucasian. Therefore, there is a limited view of the relationships established that may not be extended to other populations. The current sample was mostly female, thus subsequent research might explore whether gender differences exist. Additionally, the present study had 22% of the sample that did not identify. A more ethnic-diversified and gender-balanced sample should be recruited. Future research might also focus on exploring additional mediating variables (e.g., self-esteem, self-concept) in the relationship between indirect aggression and psychosocial outcomes, and how young adults can manage mental wellbeing.

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