# Grandparental involvement and adolescent social skills development

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#### **Abstract**

A socially competent individual tends to have better psychosocial development and wellbeing. The role of grandparents in influencing children and adolescent' social behaviour has received growing attention internationally. However, the implications of grandparental involvement for adolescent social skills has been neglected in existing literature. This study examined whether there was a direct relationship between grandparental involvement and teenagers' social skills by controlling for the effect of gender, parental involvement, and sibling relationships. It was hypothesized that grandparental involvement would be positively associated with adolescent prosocial skills (i.e. behaviours that bring benefits to others) and negatively associated with adolescent asocial behaviour (i.e. behaviour that leads to one being isolated from peers). A cross-sectional design was employed with a sample of 202 grade 9 and 10 learners (aged 13 -16 years) from a public school in Cape Town. This study used selfadministered questionnaires, including measures selected from the My Grandparents and Me Teen Survey, the Sibling Inventory of Behaviour (SIB), and the Teenage Inventory of Social Skills (TISS). The results of hierarchical regression analyses failed to provide evidence in favour of the hypotheses. However, the findings of the study indicated that female learners reported engaging more in prosocial skills and less in asocial behaviours than male learners did. In addition, greater parental involvement was significantly associated with less asocial behaviour in teenagers. The discrepancies between present and prior research underscore the need for future research to clarify the associations between grandparental involvement and adolescent social skills.

*Keywords*: grandparental involvement, adolescent social skills, prosocial behaviour, asocial behaviour, gender, parental involvement, sibling relationships

# **Background**

Previous research suggests that social skills play a vital role in children's and adolescents' life skills and interpersonal processes, critically affecting their early psychosocial development by preventing internalising problems (Segrin, McNelis, & Swiatkowski, 2015; Warnes, Sheridan, Geske, & Warnes, 2005). Social skills are also studied under the term "interpersonal skills" and "social competence". Family relationships have significant impacts on the development of social skills in children and adolescents, including parental involvement and sibling interactions. Additionally, studies have found that grandparental involvement is significantly associated with children's social behaviours and psychosocial development (Yorgason, Padilla-Walker, & Jackson, 2011; Zeng & Xie, 2014). However, little research has been done to examine the direct relationship between grandparental involvement and social skills development. In light of this, the present study aims to address this gap. This is an important area of research as parental involvement has been decreasing due to their responsibility to work and provide financial support to the family. As a result, the need for grandparental help has become increasingly significant (Chan & Boliver, 2013; Kirby, 2015).

# Social Skills and Their Impact on Children and Adolescents

Research has shown that social skills have a huge impact on children and adolescents' psychosocial development and wellbeing (Segrin et al., 2015). In the present study, higher levels of social skills are defined as engaging in more prosocial behaviour and less asocial behaviour. Prosocial behaviour refers to behaviours that bring benefits to others, such as helping, caring, sharing, and guiding (Eagly, 2009). Correspondingly, asocial behaviour includes behaviours that lead to one being isolated or withdrawn from peers and society (Inderbitzen & Foster, 1992). Socially and emotionally competent individuals are able to form healthy and productive relationships in various contexts, such as at school, home, and in the community, by understanding and responding to others' emotions effectively (Leme, Prette, & Coimbra, 2015). Socially responsible behaviours have been reported to form one of the core competencies of social skills, which require good self-regulatory and self-management abilities. These skills include being honest and dependable to peers, following school rules, and setting, planning, and pursuing goals (Oberle, Schonert-Reichl, Hertzman, & Zumbo, 2014).

Well-developed social skills facilitate positive interpersonal relationships, which in turn prevent children from developing internalising problems, such as depressive symptoms and anxiety (Nilsen, Karevold, Røysamb, & Gustavson, 2013). Adolescents tend to be more vulnerable to stress than younger children due to the increasing biological, cognitive, and social changes associated with the transition to adolescence. In effect, they may need better social skills for the effective management of interpersonal relationships. Adolescents with well-developed social skills are more resilient and more likely to show high levels of psychological adjustment during the adolescent transition (Leme et al., 2015; Nilsen et al., 2013). In contrast, individuals with poor social skills are more susceptible to illness under stressful conditions. As a result, the risk of having other psychosocial problems, such as anxiety and phobias, eating disorders, and avoidance, is increased (Segrin et al., 2015).

#### Social Skills and Gender

The critical role of gender in affecting children and adolescents' level of social and emotional competence has been explored by previous research suggesting girls are usually better social performers than boys are (Eagly, 2009). In addition, females are more skilled at interpreting nonverbal messages by genuinely being sensitive to others' facial cues and emotions. Correspondingly, females are more likely to be nonverbally expressive, by frequently expressing emotions through facial expressions, such as smiling (Riggio, 1986). In contrast, males tend to focus more on task accomplishment and engage in short-term helping behaviour (Eagly & Wood, 1991).

# Parents and Siblings' Impacts on Children and Adolescents' Social Skills

Family relationships have significant influences on children and adolescents' social behaviours; and different relationships play different roles (Nilsen et al., 2013). For instance, both parents' emotion-related beliefs directly affect their children's skill of coping with emotional difficulties and recognising emotions accurately through shaping of the family environment. A good environment would be constructed for children to learn and develop social skills if parents view emotions as valuable, and are more sensitive to children's emotional expressions (Castro, Halberstadt, Lozada, & Craig, 2015). For instance, parents' teaching behaviours (i.e. discussing the consequences of a behaviour with the child), are identified as improving emotion recognition skills, reducing internalizing and externalizing behaviours at school, and enhancing social competence in children (Castro et al., 2015).

Overall family cohesion and connectedness predicts improvement in social skills, especially gains in social self-efficacy and problem-solving skills (Leidy, Guerra, & Toro, 2010).

According to Day and Padilla-Walker (2009), both the father and mother play significant roles in influencing children's social behaviours. Father-involvement was associated with fewer problem behaviours, particularly internalising problems. Furthermore, support from the father functions as an important source of social capital, which can provide advice and strategies for children to establish positive peer relationships (Zhang, 2012). Meanwhile, positive mother-interactions were more related to positive behaviours, for example relationship-building skills (Day & Padilla-Walker, 2009). Generally, social skills can be learned and practiced in a systematic and meaningful way if both parents are supportive. Children who experienced negative parenting styles would perceive the social world as untrustworthy and as unworthy of love themselves, which impairs their social skills (Zhang, 2012).

The presence of siblings is also associated with social competence (Feinberg et al., 2013). Support from older siblings may improve children's sensitivity and understanding toward others' feelings and beliefs. Older siblings also gain social skills from positive interactions as they learn how to care, teach, and balance self-concerns with the needs of others (Downey, Condron, & Yucel, 2015). However, children's social skills might be impaired if there are high levels of sibling conflict. Conflict between siblings might lead to depressive symptoms among siblings and increase parental stress, which reduces parents' capacity of monitoring youth and may cause a maladaptive parenting style (Feinberg et al., 2013).

# **Grandparental Involvement and Social Behaviours**

Although most of the existing research has focused on the nuclear family (Castro et al., 2015), growing evidence suggests that grandparents may also have an increasingly significant impact on children's social behaviours (Kirby, 2015). In the UK, 49% of mothers were employed full- or part-time by 1999, signalling an increase in non-maternal help (Fergusson, Maughan, & Golding, 2008). Half of all grandparents visited their grandchildren at least once a week, and roughly one-third of all grandparents were providing informal care to their grandchildren by 2011 (Chan & Boliver, 2013). In the US, multigenerational coresidence is most common among ethnic minority families, due to the lack of adequate housing and quality childcare, as well as cultural beliefs about kinship reliance (Barnett,

Milis-Koonce, Gustafsson, & Cox, 2012). In South Africa, maternal grandmothers are viewed as a primary source of support in raising grandchildren among Black families (Nkosinathi & Mtshali, 2015). Maternal grandparents tend to be the most involved in child-rearing as 80% of them visited their grandchildren at least once a week, while paternal grandfathers are the least involved (Danielsbacka & Tanskanen, 2012; Wild & Gaibie, 2014). In addition, parents often suffer from high rates of substance abuse, mental illness, violence, and the HIV/AIDS epidemic in South African communities, which leaves the burden of childrearing on grandmothers (Nkosinathi & Mtshali, 2015).

It has been suggested that grandparents might play a similar role to parents in three-generation families, as living with well-educated grandparents and parents both have positive effects on children's academic attainment (Zeng & Xie, 2014). Likewise, a positive association was found between non-residential grandparents' emotional involvement and prosocial behaviour in children (Yorgason et al., 2011). Non-residential grandparents may focus more on facilitating their grandchildren's positive behaviour rather than punishing them for inappropriate behaviour. This might help grandchildren to cope better with parent-child conflict during early adolescence (Yorgason et al., 2011).

A few studies have reported that grandparents had direct influences on children's sociability, mainly through modelling, promoting traditional values such as respect and work ethics, as well as discussing appropriate behaviour (Dunifon, 2013; Fergusson et al., 2008; Zeng & Xie, 2014). Staying in active contact with grandparents was associated with fewer emotional problems, more prosocial behaviour, and fewer adjustment difficulties (Attar-Schwartz, Tan, Buchanan, Flouri, & Griggs, 2009). Grandparental support has a stronger effect when the child is experiencing a hardship, such as loss of a parent or parents' divorce (Dunifon, 2013).

#### **Considerations of Previous Literature**

As indicated by previous research, both grandparental involvement and well-developed social skills are associated with more prosocial behaviour and fewer emotional problems in children (Leme et al., 2015; Yorgason et al., 2011). However, little has been done to examine the direct relationship between grandparental involvement and social skills. Thus, whether grandparents have any influences on grandchildren's social skills remains a matter of empirical investigation. Although most of the studies indicated that grandparental involvement generally yields positive outcomes (Kirby, 2015; Zeng & Xie, 2014), some have

argued that children who live with their grandparents tend to have more emotional and behavioural problems (Leidy et al., 2010). For instance, family cohesion and closeness might be destroyed if grandparents' parenting expectations do not agree with those of parents (Kirby, 2015). In South Africa, researchers have found that grandmothers may also be affected by high poverty, diminishing physical and psychological health, and traumatic experiences, which consequently create difficulties in caregiving toward grandchildren (Nkosinathi & Mtshali, 2015). These complex factors should be taken into account when conducting future research.

# **Summary**

Socially competent individuals are able to form positive interpersonal relationships, as well as to manage them effectively. Good social skills prevent children and adolescents from developing emotional problems, whereas deficient social functioning increases the likelihood of having psychosocial problems. Gender remains an important factor to be considered in relation to adolescents' social skills development. Both parents' emotion-related beliefs and behaviours also have a direct impact on children's social competence. Father-involvement is associated with fewer problem behaviours, while mother-interactions are more related to positive behaviours. Children can gain social skills from positive interaction with siblings, however high levels of sibling conflicts impair the development of social skills.

Grandparental involvement is associated with fewer emotional problems, more prosocial behaviour, and fewer adjustment difficulties in adolescents, regardless of the family structure. Nevertheless, grandparents' direct effect on children's social skills is worth investigating empirically as little research has addressed it.

# **Aim and Hypotheses**

This study aims to address the gap in the literature by studying the implications of grandparental involvement for social skills development in adolescents in Cape Town, South Africa. The objective of this research is to investigate whether greater grandparental involvement is associated with better social skills in adolescents after controlling for parental and sibling involvement, as well as gender. In particular, grandparental involvement is expected to be associated with more prosocial behaviour and less asocial behaviour in adolescents.

Therefore, the following research hypotheses were tested:

H<sub>1</sub>: Grandparental involvement will be positively associated with teenagers' prosocial behaviour.

H<sub>2</sub>: Grandparental involvement will be negatively associated with teenagers' asocial behaviour.

### Method

# **Design and Setting**

A quantitative, correlational, cross-sectional design was employed in order to examine the association between grandparental involvement and adolescents' social skills. In a cross-sectional study, a snapshot of these two variables is taken at a single point in time (Field, 2009).

Data were obtained from high school students using well-established surveys to assess participants' demographics, parental involvement, sibling involvement, grandparental involvement, and social skills.

# **Participants**

**Sample characteristics**. The research sample consisted of 202 grade 9 and 10 learners from a public high school in the Cape Town metropolitan area. The school belongs to the Metropolitan South Education District, where English has served as the only language for tuition since 2011.

The study sample consisted of 113 female learners (55.9%) and 88 male learners (43.6%), and 1 leaner who did not identify his/her gender. The age ranged from 13 to 16 years (M = 15.00, SD = .74). The sample comprised 162 coloured learners (80.2%), 20 black learners (9.9%), 11 white learners (5.4%), and 8 learners from other races (4.5%). The majority of the participants spoke English as first language (91.1%); and 53% of the sample was Christian while 37.1% was identified as Muslim.

**Sample size calculation**. Sample size was determined prior to data collection for multiple regression analyses in order to maximise statistical power. By using G\*Power (Version 3.1.7), a minimum sample size of 85 participants was required for this study. The calculation was done with the assumption of  $\alpha = .05$ , directional hypotheses, 4 predictors (i.e. gender, parental involvement, sibling relationships, and grandparental involvement), a target

power of .80 and a medium effect size (Cohen's  $f^2 = .15$ ). A post-hoc power analysis showed that with a final sample size of 202, a power level of 0.99 was achieved.

**Sampling procedure**. This study specifically targeted adolescents, i.e. high school learners, who might need good social skills to cope with the adolescent transition period (Nilsen et al., 2013). Due to economic and time constraints, convenience sampling techniques were employed. Four public high schools in the suburbs surrounding the University of Cape Town were contacted, one of which agreed to participate in the study.

**Inclusion criteria**. Learners currently enrolled in grade 9 and 10 (approximately aged from 14 -16) were eligible to participate in the study. Having at least one living biological grandparent was an important prerequisite for the purposes of the present study. In addition, proficiency in reading and writing in English was required as the assessment instruments employed for the study are in English.

There were 355 grade 9 and 10 learners in total, and 288 of them consented to participate in the research. However, 86 (29.9 %) of the original eligible sample were excluded from the study due to the following reasons. First, participants who had no living biological grandparents were excluded as they failed to fulfil the purpose of the study (n = 24). Second, participants were excluded when they failed to answer most of the items (e.g. an entire section or more than a quarter of one specific section) on the survey (n = 56). For example, one class of learners were not given enough time to complete the survey due to other academic activities. Third, a participant's overall response was treated as invalid when a response bias could be clearly identified (n = 6). For example, acquiescence bias refers to when a participant's response was contradictory because he/she tends to agree/disagree with all items regardless of the content (Knowles & Nathan, 1997). Miscellaneous response sets were also identified, as some learners tended to respond in a pattern that is random and inconsistent (e.g. 1, 2, 3, 4, 5, 1, 2, 3, 4, 5, etc., or all 2s; Paulhus & Vazire, 2007).

#### **Measures**

This study selected three measures from the self-report My Grandparents and Me Teen Survey (see Appendix A). These included a demographic questionnaire, an assessment of parental involvement, and a grandparental involvement scale. Sibling involvement was assessed using the Sibling Inventory of Behaviour (SIB) (see Appendix B; Schaefer & Edgerton, 1981). Adolescents' social skills were measured by the Teenage Inventory of Social Skills (TISS) (see Appendix C) developed by Inderbitzen and Foster (1992).

**Demographics**. Learners were asked to report their age, gender, home language, race, and religion. Gender was treated as a control variable guided by previous literature, while other demographic factors were assessed in order to further explore the characteristics of the sample.

**Parental involvement**. Six items were extracted from the 1979 US National Longitudinal Survey of Youth (NLSY79) self-administered supplement to assess mother and father involvement. The scale assesses the quality of teenagers' interaction with mother and father in terms of parental engagement in positive activities with teenagers, decision-making process, emotional closeness, and parental monitoring of behaviour. Learners responded on a 4-point continuum (0 = never, 1 = hardly ever, 2 = sometimes, 3 = often). An example item is "How often does each of your parents listen to your side of the argument?"

Factor analysis showed that the scale loaded most strongly on a single factor representing high-quality parental involvement (Pleck & Hofferth, 2008). Evidence from a previous study with a similar sample of South African adolescents supported the internal consistency of mother involvement ( $\alpha$  =.66) and father involvement ( $\alpha$  =.82; Wild & Gaibie, 2014).

In the present study, data provided evidence for good internal consistency of mother involvement ( $\alpha$  =.67) and father involvement ( $\alpha$  =.76). The average of both parents' scores were calculated to form a single index score as mother and father involvement were significantly associated (r =.36, p < .001). In the event of having one living biological parent in the family (n = 14), that parent's involvement score was treated as the final scale score in order to maximise statistical power (Yorgason et al., 2011).

Sibling Relationships. The Sibling Inventory of Behaviour (SIB) developed by Schaefer and Edgerton (1981) was employed to assess sibling involvement. The questionnaire aims to assess how parents and children perceive the behaviour of a sibling. The original scale was designed to measure both positive and negative aspects of sibling behaviours (Volling & Blandon, 2003). For the present study, only the positive subscale was employed, which has 15 items. These items are aimed at assessing three dimensions of sibling behaviour, including companionship/involvement, empathy/concern, and teaching/directedness. Items were rephrased for the purpose of present study, for example, "accepts (Child 1) as a playmate" is replaced by "my sibling accepts me as a playmate". Learners were asked to rate each item based on their siblings' behaviour on a 5-point Likert

scale, ranging from never to always; and higher scores indicate better quality of sibling interaction. In cases where the learner had more than one sibling, he/she was asked to rate the sibling to whom they were closest.

All the positive subscales of the SIB had alpha coefficients over .70 in the original validation study (Volling & Blandon, 2003), and over .80 in the present study, indicating good internal consistency. A parent version of the SIB was reported to have Cronbach's alpha scores of between .77 and .85; and a child version also showed good reliability with Cronbach's alpha scores of between .74 and .84 (Cuskelly & Gunn, 2003). High correlations have been reported between mother's and father's reports with a median of .64. The SIB scales also yielded good validity by examining the correlations between the SIB and teacher's ratings of the children's behaviour in classroom settings. Teachers' ratings of companionship/involvement (r = .30, p < .05), teaching/kindness (r = .37, p < .05), and empathy/concern (r = .45, p < .01) were highly associated with parent's ratings of the older siblings' behaviour at home (Volling & Blandon, 2003).

Grandparental involvement. An 11-item scale developed by Griggs, Tan, Buchanan, Attar-Schwartz, and Flouri (2010) was employed for participants to report on grandparental involvement. Participants were asked to rate each of their living biological grandparents, and the highest score was treated as the final score for grandparental involvement. The scale has been modified in relation to the South African context by including items regarding joint activities, such as doing religious practice and household chores (Profe & Wild, 2015). A sample item is "How much does your grandparent make you feel appreciated, loved, or cared for?" Each item is scored on a 3-point Likert scale, with 0 indicating not much, 1 indicating some, and 2 indicating a lot. Higher scores suggest greater grandparental involvement. Both maternal grandparent involvement and paternal grandparent involvement showed large Cronbach's alpha coefficients ranging from .87 to .91 in the present study, which is consistent with the results of a previous study with a sample of high school learners in Cape Town (Profe & Wild, 2015).

Adolescent Social Skills. The Teenage Inventory of Social Skills (TISS) was used to measure adolescents' social skills. It is a self-report instrument which includes one positive scale (20 items) and one negative scale (20 items), forming 40 items in total. The two subscales are the prosocial behaviour scale and the asocial behaviour scale (Inderbitzen & Foster, 1992). The former scale reflects behaviours that facilitate effective interpersonal

interactions, including cooperation, community participation, altruism and ability to express feelings. The latter scale assesses poor social behaviours, including aggression, low self-esteem, social anxiety, and conceit (Zamani, Kheradmand, Cheshmi, Abedi, & Hedayati, 2010). The word "people" is used to replace the slang term "guys" in the original scale for the current study. Example items include "I thank other people when they have done something nice for me" and "I call people bad names to their faces when I am angry" (Wadman, Durkin, & Conti-Ramsden, 2011).

Items were scored on a 6-point Likert scale ranging from "does not describe me at all" to "describes me totally". The sums of items in each subscale were treated as the scores for prosocial behaviour and asocial behaviour respectively. In this regard, the score of each subscale ranged from 20 to 120. A high score on the prosocial behaviour scale reflected high levels of social competence in participants, whilst a high score on asocial behaviour scale indicated poor social performance in a learner.

By using the internal reliability analyses, the prosocial behaviour subscale and the asocial behaviour subscale showed large reliabilities in the original validation study ( $\alpha$  = .88 for both scale; Inderbitzen & Foster, 1992), and in a previous study using a sample of US adolescents ( $\alpha$  = .90 and .84 respectively; Inderbitzen & Garbin, 1992). Similarly, good internal consistency for the two subscales was found in the present study, with Cronbach's alpha coefficients of .79 and .86 respectively. Both the positive and negative scale provided evidence supporting temporal stability, with test-retest Pearson correlations of .90 and .72 respectively (Inderbitzen & Foster, 1992). The readability scores for this scale indicates that children aged 9 -10 years old are capable of understanding the scale properly (FRE = 83.2 and FKGL = 4.4).

The validity coefficient for the positive scale was .71, and for the negative scale was .68 (Zamani et al., 2010). According to the evaluation of Inderbitzen and Foster (1992), TISS provided evidence for good convergent validity through various types of measures, such as correlations with socioeconomic data, self-monitoring data, and peer ratings. The low correlation with socioeconomic status and social desirability provided evidence for good discriminant validity for the scale (Wadman et al., 2011). The two subscales have been reported to have good construct validity by using exploratory and confirmatory factor analysis, and criterion related assessments (Inderbitzen & Garbin, 1992). There is also evidence suggesting high

reliability and construct validity in both Spanish and German versions of the scale (Wadman et al., 2011).

#### Procedure

The present study met the ethical requirements of the University of Cape Town regarding research involving human participants. Permissions were obtained from the principal who gave written informed consent to participate from the selected school in Cape Town, the Western Cape Education Department (see Appendix D), and a research ethics committee at the University of Cape Town (see Appendix E). All grade 9 and 10 classes in the school were surveyed.

Consent was obtained from all participating learners' parents or caregivers (see Appendix F). As the study could not reasonably be expected to cause any harm, passive parental consent procedures were used. Learners were given consent forms to take home for their parents two days before the study. Parents were asked to return the forms to the school if they did not allow their child to participate, on or before the data collection took place. No response was regarded as permission for the learners to participate. On the day of the research, all participants were also asked to complete an informed assent form before answering the questionnaires (see Appendix G). The purpose, procedures, expected duration, and potential risks and benefits of the study were outlined in detail in both parental consent and adolescent assent forms.

Data were collected from a classroom setting where school teaching and learning activities were not disrupted. The researcher was present to give verbal instructions with regard to the adolescent assent form and the questionnaire at the beginning of the class. The survey was only administered to learners who had signed the informed assent form and obtained permission from their parents. The learners were provided with 30 minutes to complete the survey. They were monitored throughout the period and were permitted to ask any questions pertaining to the survey.

Participation in this research did not carry any direct benefits or costs to learners and their parents and was completely voluntary. Learners were given the opportunity to reject participation by returning the signed parental consent form or not signing the adolescent assent form. They were also allowed to withdraw from the research at any stage and could refuse to answer any item in the survey without penalties. The contact details of Lifeline

Western Cape were provided to all participating learners in case they experienced any emotional difficulties during the data collection process.

Nevertheless, most of the learners appreciated being given the opportunity to be part of the research and seemed to enjoy answering the survey items. Participants were thanked and provided with a snack as compensation for their time, effort, and honesty in filling out the survey after data collection was done. They were also welcomed to contact the researcher if they have any further enquires or concerns in the future. Responses from the participants were kept anonymously and confidentially in a safe place that is only accessible to the researcher for the purpose of the study.

# Data analysis

The SPSS statistical software package (Version 23.0) was used for data analysis. The significance level was set at p < .05 throughout the study. Some of the missing values (i.e. where participants chose to skip 1 or 2 items on a single scale) were replaced by the means of the items that the participant had answered on that particular scale. However, some participants could not respond to the parental involvement and sibling involvement questionnaires due to having no living parents and siblings. Thus, it was only meaningful to retain these scores as missing. In this regard, pairwise deletion was used throughout the analysis in order to include the responses of participants who had no living parents and siblings on other measures including grandparental involvement and social skills.

Guided by the hypotheses, the current study identified grandparental involvement as the independent variable. The dependent variables were defined as the prosocial behaviour scores and the asocial behaviour outcome for  $H_1$  and  $H_2$  respectively. The analyses began with a careful investigation of the correlation matrix to determine the relationship between social skills and grandparental involvement, and then proceeded to examine these relationships taking the control variables into account.

Guided by past theoretical work and empirical studies, gender was considered as a control variable as it plays a significant role in affecting one's social competence (Riggio, 1986). In addition, this study treated parental involvement and sibling relationships as control variables as greater parental involvement and sibling involvement might produce positive outcomes in teenagers' social skills (Day & Padilla-Walker, 2009; Feinberg et al., 2013). Thus, a three-step hierarchical multiple regression was done for each hypothesis, by including gender in the first step, and parental involvement and sibling relationship in the second step.

In order to eliminate their effects on confounding the relationship between grandparental involvement and social skills, grandparental involvement was entered as the last step in all regression models.

Descriptive statistics were carefully inspected and assumptions of all statistical tests were checked before running analyses. A histogram and normal P-P plot (see *Figure 1* and *Figure 2* respectively in Appendix H) of the standardized residuals for the outcomes of prosocial skills suggest the distribution fits perfectly under a normal distribution. Similarly, the outcomes of asocial behaviour were normally distributed (see *Figures 3* and *Figure 4*) respectively in Appendix H). Moreover, there was no indication of severe skewness or kurtosis for the distributions of the independent variables. The Variance Inflation Factor (VIF) and tolerance scores showed that there was no undue collinearity within the data under all hypotheses. In addition, no obvious outliers and heteroscedasticity were detected and no cases were found to have large Cook's distance. Thus, all cases were retained in the final multiple regression analyses.

#### Results

# **Descriptive Statistics**

Table 1 shows a summary of the descriptive statistics for the key variables in the study, including means (M), standard deviations (SD), and the corresponding sample size (n).

Table 1

Descriptive Statistics

Variables	n	M	SD
Parental involvement	200	12.34	2.93
Sibling involvement	188	51.05	13.74
Grandparent involvement	202	12.78	5.30
Prosocial behaviour	202	86.98	12.84
Asocial behaviour	202	85.25	16.11

# **Correlation Analyses**

Person product-moment correlations were first examined. Gender was positively associated with the prosocial behaviour score (r = .25, p < .001), suggesting female learners

reported higher levels of prosocial skills than their male counterparts did. In support of hypothesis 1, the relationship between grandparental involvement and prosocial behaviour was also positive and significant, although relatively weak (r = .15, p = .036). Furthermore, both parental involvement and sibling involvement were positively associated with prosocial behaviour (r = .16, p = .026; r = .19, p = .01 respectively). The results suggest that the involvement of parents, siblings, and grandparents were all associated with teenagers' prosocial behaviour outcome.

Gender was negatively related to learners' asocial behaviour score (r = -.38, p < .001), which means female learners reported lower levels of asocial skills than their male peers did. Correspondingly, asocial behaviour showed a significant association with parental involvement (r = -.27, p < .001), which indicates that greater parental involvement was associated with less asocial behaviour in teenagers. However, no significant relationship was found between asocial behaviour and grandparental involvement. Similarly, asocial behaviour was not significantly related to the relationship with siblings. A summary of the correlation results can be found in a correlation table (Table 2).

Table 2

Correlations between Gender, Parental Involvement, Sibling Involvement, Grandparent Involvement, and Social Skills (n = 202)

Variables	1	2	3	4	5	6
1. Gender <sup>a</sup>	-					
2. Parental involvement	$.16^{*}$	-				
3. Grandparent involvement	08	$.16^{*}$	-			
4. Sibling involvement	.05	.24***	.20**	-		
5. Prosocial behaviour	.25***	.16*	$.15^*$	.19**	-	
6. Asocial behaviour	38***	27***	.09	.04	16 <sup>*</sup>	-

 $a_1 = male$ ,  $a_2 = female$ .

<sup>\*</sup>p < .05. \*\*p < .01. \*\*\*p < .001

# **Hierarchical Multiple Regression Analyses**

The results of a three-step hierarchical multiple regression analyses for  $H_1$  and  $H_2$  are presented in Table 3.

**Hypothesis 1**. It was hypothesized that grandparental involvement would be positively associated with prosocial behaviour in adolescents. By treating gender, parental involvement, and sibling involvement as the control variables, and grandparent involvement as the independent variable, the overall model yielded a significant result, F(4, 182) = 5.91, p < .001. In addition, the overall model explained 12% of the variance in prosocial skills.

Control variables. Gender alone accounted for 6.2 % of the variance in prosocial behaviour, F(1, 185) = 12.24, p = .001. The inclusion of parental involvement, and sibling involvement accounted for a further 3.7% of the variance in prosocial behaviour, F(3, 183) = 6.71, p < .001. However, after being partialled out for each other, only gender was positively associated with prosocial behaviour, b = 6.28, t = 3.42, p = .001. The results indicated that female teenagers' prosocial behaviour scores were 6.28 units higher than that of male teenagers on average. Neither parental nor sibling involvement was found to be significantly related to teenagers' prosocial behaviour.

Grandparent involvement. Although the addition of grandparent involvement explained a further 1.6% of the variance of prosocial behaviour, the change was not statistically significant. The significant correlation between grandparent involvement and prosocial behaviour disappeared after partialling out the effects of gender, parental involvement, and sibling relationships. Therefore, grandparent involvement was not a significant independent predictor of adolescents' prosocial skills.

**Hypothesis 2**. It was hypothesized that grandparental involvement would be negatively associated with asocial behaviour in teenagers. Gender was entered first, followed by parental and sibling involvement, and grandparent involvement was added last as the independent variable. The overall model was significant, F(4, 182) = 10.35, p < .001, indicating the model is effective in predicting the outcome, which explained 19% of the variance in asocial behaviour.

Table 3

Hierarchical Multiple Regression Analyses Predicting Adolescent Social Skills from Gender, Parent Involvement, Sibling Relationships, and Grandparental Involvement

	Adolescent social Skills							
		Prosocial beh	aviour		Asocial behaviour			
Predictors	$\Delta R^2$	β	SE(β)	$\Delta R^2$	β	SE(β)		
Step 1	.06**			.13***				
Gender <sup>a</sup>		.24**	1.84		33***	2.22		
Step 2	.04*			.05**				
Parent		.07	.32		23***	.40		
involvement								
Sibling		.13	.01		.09	.08		
relationships								
Step 3	.02			.01				
Grandparental		.13	.18		.07	.22		
involvement								
	R = .34			R = .46				
	$Adj.R^2 = .10$			$Adj.R^2 = .19$				
n	202			202				

*Note*: Unstandardized coefficients are provided for the step in which the predictor first entered the model, controlling for those variables entered in the same and previous steps.

 $a_1 = \text{male}, 2 = \text{female}.$ 

<sup>\*</sup>p < .05. \*\*p < .01. \*\*\*p < .001

Control variables. Gender remained as a significant predictor of asocial behaviour, accounting for 13% of the variance, F(1, 185) = 28.51, p < .001. By including parental involvement and sibling relationship, the model explained 18% of the variance in asocial behaviour, F(3, 183) = 13.44, p < .001. After partialling out, gender and parental involvement showed significant relationships with asocial behaviour (b = 10.84, t = -4.88, p < .001; and b = 1.30, t = -3.27, p = .001 respectively). The results indicated that male adolescents' asocial skills scores were 10.84 units higher than that of female adolescents on average; and as parental involvement increases by one unit, asocial behaviour scores decrease by 1.30 units. On the contrary, sibling involvement was not significantly related to asocial behaviour in teenagers.

Grandparent involvement. The inclusion of grandparental involvement failed to provide any further significant explanation of the variance in asocial behaviour. Thus, no significant relationship was found between grandparental involvement and adolescents' asocial behaviour after taking gender, parental involvement, and sibling relationships into account.

#### **Discussion**

The purpose of this study was to investigate whether or not there is a direct relationship between grandparent involvement and social skills in adolescents. In particular, higher levels of grandparent involvement were expected to be directly related to more prosocial behaviours and fewer asocial behaviours. The findings of the present study failed to provide evidence in favour of these hypotheses. This means that there was no direct relationship between grandparental involvement and teenagers' social competence. However, several important findings emerged from this research with regards to the role of control variables, including gender, parental involvement, and sibling interactions.

Gender. There was a strong pattern of gender differences among teenagers in terms of social skills performance. Female adolescents in the present study reported engaging more in prosocial behaviours and less in asocial behaviours than male learners did. This finding is consistent with previous theoretical work, which suggests that females generally display greater interest in others, perceptiveness, empathy, and adaptability, and therefore are more socially competent than men (Naghavi & Redzuan, 2011; Riggio, 1986).

One possible interpretation of this finding is that gender differences in social behaviour are governed by gender role beliefs embedded in social norms and individuals'

expectations (Eagly, 2009). Specifically, women are usually perceived as more "communal" – that is nurturing, friendly, expressive, altruistic, and concerned with others. This belief is widely shared across the globe and women generally portray the "helping role" in order to gain social approval. As a result, females perceive social relationships, emotions, and trust as more valuable than males do (Skara, Pokhrel, Weiner, Sun, Dent, & Sussman, 2008). In the case of adolescents, the desire and ability to construct positive relationships with others in turn increases the likelihood of female learners showing more prosocial behaviours (Eagly, 2009). However, this finding is not supported by Abdullahi and Kumar (2016), who found females and males had similar levels of prosocial behaviour in an Indian population, which suggests possible cultural differences in gender role beliefs.

Moreover, the findings of the present study echo the traditional view that male teenagers tend to display more asocial behaviour than female teenagers do. Researchers have argued that males tend to prioritize physical dominance and authority over social relationships, so that they often engage in aggressive behaviour, impulsivity, and risk-taking behaviour in order to achieve these aims (Cross, Copping, & Campbell, 2011; Skara et al., 2008). Correspondingly, the finding is consistent with prior empirical studies, which suggested that males had lower levels of agreeableness, altruism, and nurturance compared to their female counterparts (Csibi & Csibi, 2011; Eagly & Wood, 1991). However, some evidence indicates that female teenagers might also have similar levels of asocial behaviour as their male peers (Archer, 2009; Chaplin, Cole, & Zahn-Waxler, 2005).

Parental involvement. The present research found that parental involvement was significantly correlated with both more prosocial behaviour and less asocial behaviour in adolescents. These results supported previous research (Castro et al., 2015; Zhang, 2012). However, the relationship with prosocial behaviour disappeared when adolescent gender and sibling relationships were taken into account, whilst the relationship with asocial behaviour remained significant. In other words, positive relationships with parents were only helpful in avoiding asocial behaviour in adolescent children, and not in developing prosocial behaviour. This study showed a mixed result, which only partially supports the prior literature indicating that teenagers display more prosocial behaviour and less asocial behaviour when they have supportive parents.

On the one hand, previous theoretical work has confirmed parents' role in moderating teenagers' problem behaviour, suggesting that adolescents who have parents that are

supportive, nurturing, sensitive, and involved in their lives are less likely to develop problem behaviour than adolescents who have parents that are neglectful, inattentive, and distant (Lamborn, Mounts, Steinberg & Dornbusch, 1991). In addition, this finding is supported by a wide range of empirical studies, which demonstrated that adolescents who had lower levels of negative social behaviour and problem behaviours reported having greater parental monitoring, involvement, and communication (Bacchini, Miranda, & Affuso, 2011; Finkenauer, Engels, & Baumeister, 2005).

On the other hand, the results of the present study are contradictory to prior studies, which suggest that greater parental involvement predicts more prosocial behaviour in adolescents (Castro et al., 2015; Day & Padilla-Walker, 2009; Leidy et al., 2010).

Explanations for how and why parent involvement was related to asocial behaviour but not prosocial behaviour are speculative. One possible explanation is that the amount of attention parents pay to their children's prosocial behaviour and asocial behaviour changes during puberty and adolescence. Parents' reaction to their children's behaviour might be determined by their beliefs and expectations of their children's behaviour, which becomes a self-fulfilling prophecy (Laursen & Collins, 2004). In other words, if parents expect their children to develop more problem behaviour than positive behaviour during their adolescent transition, then they are more likely to be attentive to their children's asocial behaviour. Alternatively, adolescents' asocial behaviour such as physical aggression and teasing might attract more attention and be of most concern to parents (Glascoe, MacLean, & Stone, 1991).

Sibling Relationships. In the current research, sibling relationships were significantly correlated with prosocial behaviour in teenagers, however the association disappeared after controlling for gender and parental involvement. Similarly, no associations were found between sibling relationships and adolescent asocial behaviour. This finding is contradictory to that of a previous study, which found that siblings had consistent impacts on teenagers' positive interpersonal skills in particular in a middle school sample (Feinberg et al., 2013). In addition, Downey and colleagues (2015) found significant differences in interpersonal skills between fifth-grade children who had one sibling and those who were the only children at home. The study showed that even after several years of schooling, only children still performed poorer in social skills and self-control (Downey et al., 2015).

The main reason why this discrepancy occurred might be that most prior studies did not control for the role of gender and parenting factors, which potentially affect children and adolescents' relationship with siblings (Downey et al., 2015; Feinberg et al., 2013). For example, research has provided evidence that children tend to play a more proactive role in conflict resolution with their siblings when their parents encourage conflict communication within the family (Noller, 2005). This would in turn facilitate positive sibling relationships and social competence in children. Moreover, previous theoretical work has suggested that females tend to value social relationships than males do, and thus are more likely to invest in such relationships (Skara, et al., 2008).

**Grandparental Involvement**. Grandparental involvement was found to be related to prosocial behaviour, but not asocial behaviour in adolescents. However, after controlling for gender, the level of parental involvement and interaction with siblings, the present study did not confirm the hypotheses. This shows that grandparental involvement was not associated with either adolescent prosocial behaviour or asocial behaviour. The results suggest that parents remain the primary members of the family, in terms of affecting adolescents' social skills development.

The results of the present study are contradictory to several prior empirical studies conducted in South Africa. For instance, Wild and Gaibie (2014) found that grandparental involvement was a significant independent predictor of adolescents' prosocial behaviour. Similarly, Levetan and Wild (2016) provided evidence that greater grandmother involvement was related to more prosocial behaviour and fewer emotional problems in adolescent, even after controlling for potential confounding factors (e.g. demographics, parental involvement, and the presence of other non-parental adults in the household).

The discrepancies between present research and previous studies highlight the need for future research in this area. One possible implication is that the impact of grandparents on grandchildren might manifest itself in an indirect way, through the mediating effect of greater parental involvement. In other words, greater grandparent involvement may reduce parental stress and enhance parenting skills (Pong & Chen, 2010), which in turn facilitates the development of social skills in adolescents. For instance, grandparents often offer financial help and housework assistance to parents, so that parents are allowed more time to spend with their children and provide nurturance (Attar-Schwartz et al., 2009; Pong & Chen, 2010).

Moreover, it has been argued that the quality of grandparent-grandchild relationship is not solely determined by grandparents' willingness to provide care, but also by their ability in adapting and responding effectively to familial and children's developmental changes (Lavers & Sonuga-Barke, 1997). Thus, grandparental involvement might decrease during the adolescent transition if grandparents fail to respond sensitively to the changes associated with this turbulent period.

# **Study Limitations and Research Implications**

The present research has several limitations that need to be taken into account for future research. First, the study only used self-administered questionnaires for adolescents, which threatens the validity of the research findings. The self-report method is often associated with response bias (Paulhus & Vazire, 2007). For example, social desirability bias might occur if participants rated themselves particularly high in relation to positive social behaviours, and particularly low regarding negative social behaviours, in order to meet social norms within their peer group (Nederhof, 1985). Thus, the views of others such as teachers and peers might be useful in building a more accurate picture of adolescents' social skills (Oberle et al., 2014). In addition, grandchildren's ratings of grandparental closeness might be lower than that of grandparents (Barnett et al., 2010; Flouri, Buchanan, Tan, Griggs, & Attar-Schwartz, 2010; Monserud & Elder, 2011); and parents and adolescents might share different views about the quality of parent-child relationships (Laursen & Collins, 2004). In light of this, the reliability of future studies would be strengthened by taking into account the ratings of others. However, the current study is a good starting point, as there is limited research on the relationships between grandparental involvement and teenagers' social competence.

Second, the findings of this study have limited generalizability due to the use of convenience sampling (Farrokhi & Mahmoudi-Hamidabad, 2012). In other words, the sample of the present study is not representative of the ethnic and cultural diversity of adolescents in South Africa. Coloured learners constituted the majority of the sample (50.2%), which renders the results less meaningful in relation to the other relevant subgroups. However, as coloured people represent the largest ethnic population in the Western Cape, there is good reason to believe that this study offers a representative sample of Western Cape adolescent learners (Western Cape Government, 2011). Nevertheless, in order to enhance generalizability, future studies should recruit a more diverse sample.

Third, due to time constraints, the study adopted a cross-sectional and correlational research design, which means that causal conclusions cannot be drawn from the findings (Field, 2009). For example, adolescents who have more prosocial behaviour might cope better with the changes associated with parent-child relationships during adolescence, which

in turn fosters a better quality of the relationship (Laursen & Collins, 2004). Future studies using a longitudinal design should examine the direction of the relationships between these variables.

Fourth, the measurement of the quality of grandparental involvement was solely based on teenagers who had living grandparents and the current grandparent-child relationship quality. Teenagers' social behaviour might be influenced by a grandparent who passed away, but who was nurturing, supportive, and influential (Griggs et al., 2010). Similarly, some grandparents may have closer relationships with their grandchildren at a younger age in order to provide childcare assistance by visiting more often (Griggs et al., 2010). In such cases, grandparents might regulate teenagers' social behaviour through early experiences and influences. In addition, future research should consider the qualitative aspects of grandparent involvement, for example a special memory of a grandparent in childhood, in order to explore the nature of grandparent-child relationships and their influences on adolescent social competence.

Fifth, the present research did not distinguish between the roles of different grandparents. Thus, the study could not provide meaningful analyses regarding the different nature of involvement with different grandparents. A growing body of research has indicated that different grandparents might play different roles in affecting grandchildren's behaviour (Danielsbacka & Tanskanen, 2012; Griggs et al., 2010; Yorgason et al., 2011). For example, maternal grandmothers tend to live with their adult children and grandchildren more than other grandparents do in order to provide childcare and material support (Hamilton, 2005). Likewise, maternal grandmothers are more likely to be directly involved in child rearing, and shaping grandchildren's behaviour through interactions (e.g. providing direct emotional support and teaching discipline; Griggs et al., 2010). Correspondingly, grandfathers often affect adolescent grandchildren indirectly, such as by sharing personal stories or going on a nature trip together (Griggs et al., 2010). Thus, it should be useful for future research to investigate whether different grandparents play different roles in affecting grandchildren's social competence.

Further, this study did not taken into account all aspects of social skills. For example, aggression as one of the aspects of asocial behaviour, was only assessed in a direct form and not the indirect form. Direct aggression occurs when one physically harms and threatens others, while indirect aggression refers to non-physical acts of meanness, such as gossiping,

spreading rumours, and excluding others (Card, Stucky, Sawalani, & Little, 2008). Some evidence has suggested that male adolescents are more likely to be associated with direct aggression and female adolescents tend to show asocial behaviour in an indirect way (Archer, 2009; Chaplin et al., 2005). In addition, indirect aggression is positively related to prosocial behaviour as those who engage more in exclusion of others or rumour spreading need prosocial skills to gain support from peers (Card et al., 2008). Therefore, it might be beneficial for future research to broaden the scope of social skills by including more aspects of adolescents' social behaviour.

The last limitation is that the study did not take into account the factors that might influence the nature and quality of adolescents' relationships with grandparents and overall family cohesion. For example, the socio-economic status of a family has been perceived to be directly related to both parents' and grandparents' health and wellbeing, financial resources, and childcare ability (Dunifon, Ziol-Guest, & Kopko, 2014). Thus, considering socio-demographic factors might be beneficial for future study to further clarify the relationships between grandparental involvement and adolescent social behaviour.

# **Study Contributions and Implications**

In spite of its shortcomings, the present study has made the first step in investigating the relationships between teenagers' social skills and grandparental involvement in a local context. Although no links were detected between grandparental involvement and adolescent prosocial skills or asocial behaviour, this area of study still remains important in South Africa given the increasing grandparental care within the country, as well as the cultural emphasis on family cohesion and intergenerational connectedness (Nkosinathi & Mtshali, 2015). In addition, the inconsistencies between prior and present studies inform a space for future research.

Moreover, although this study did not provide evidence in favour of the hypotheses, the findings have provided additional support regarding other possible predictors of teenagers' social skills development. The first implication of the present research is that the gender difference across adolescents in social competence has been confirmed. This suggests that male adolescents are prone to having more asocial behaviour which should require greater attention from parents, caregivers, and teachers. The second implication is that the significance of the role of parents is highlighted. In particular, the findings of the present

study suggest that parents should be encouraged to monitor and regulate their children's asocial behaviour through greater involvement during the turbulent period of adolescence.

#### Conclusion

Social skills play a vital role in affecting children and adolescents' psychosocial development, emotional competence, and interpersonal processes. With an increased need of grandparental help for childcare, the growing international literature has noted the significant impacts of grandparental involvement on adolescent social behaviour. However, the direct relationship between grandparental involvement and social skills in teenagers has been largely neglected. The present study addressed this gap by assessing the links between grandparental involvement and adolescent prosocial skills and asocial behaviour in a sample of grade 9 and 10 learners in Cape Town, South Africa. After controlling for gender, parent involvement, and sibling relationships, findings failed to provide any supportive evidence with respect to these relationships, suggesting that a better relationship with a grandparent did not predict the levels of adolescent prosocial skills and asocial behaviour. Despite that, this study had several implications regarding the significant gender differences in social competence in teenagers, as well as the crucial role of parents in teenagers' social skills development. Nevertheless, there is a need for future research to further investigate and clarify the associations between grandparental involvement and adolescent social skills, given the discrepancies between present research and prior empirical studies.

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# Appendix A

# My Grandparents and Me Teen Survey

A. Can you tell us something about yourself?

1. How old a	re you? (ple	ease circle c	ne)				
	13	14	15		16	17	
If you do not	fit any of th	ne above, pl	lease tell us	your ag	ge in years.		
2. Are you a	boy or a gir	l? (please c	ircle one)				
			Воу	Girl			
3. What is th	e language	that you sp	eak most of	ten at h	ome? (plea	ase circle on	e)
	Affrikaan	s E	English	isiX	hosa	isiZulu	
If you do not	fit any of th	ne above, pl	ease tell us	what la	nguage yo	u speak	
4. Are you	(please cir	cle one)					
	Black Afric	an	Coloured		Indian	White	
If you do not group	-	•	ease tell us	how yo	u would de	escribe your	population
5. What is yo	our religion?	(please circ	cle one)				
Christi	an	Hindu	Jewish		Muslim	No	religion
If you do not	fit any of th	ne above, pl	ease tell us	what yo	our religior	າ is	
6. What pare	ents do you	have living?	(circle all t	hat appl	y)		
		М	other	Fath	ier		
7. What grai	ndparents d	o you have	living? (circ	le all th	at apply)		
Mother's I	mother	Mothe	er's father fathe		Father's m	other	Father's
8. Do you ha	ave any sibli	ngs living?					
			Yes	No			

Can you now tell us something about your relationship with your parents? B. (Remember, we only need you to answer about your parents who are still alive) Mother Father How often does each of your parents talk over important decisions with you? 1. Hardly ever Sometimes Often 2. How often does each of your parents listen to your side of the argument? Never Hardly ever Sometimes Often 3. How often does each of your parents know whom you are with when you are not at home? Never Hardly ever Sometimes Often 4. How often does each parent miss the events or activities that are important to you? Never Hardly ever Sometimes Often 5. How close do you feel to each of your parents? Not at all close Not very close Quite close Very close How well do each of your parents and you share ideas or talk about things that really 6. matter? Not at all well Not very well

Quite well

Very well

<i>C</i> .	Can you now tell us something about your re (Remember, we only need you to answer about you	•	•		
		Mother's mother	Mother's father	Father's mother	Father's father
1.	How much can you depend on your grandparent t	o be there v	when you re	ally need h	nim/her?
	Not much				
	Some				
	A lot				
2.	How much does your grandparent make you feel a	appreciated	, loved, or c	ared for?	
	Not much				
	Some				
	A lot				
3.	How often do you talk to them about personal ma	ntters or thir	ngs that are	important	to you?
	Never				
	Occasionally				
	Often				
4.	How often does your grandparent help you by giv	ing you advi	ce or helpin	g solve pro	blems
	you have?	<b>G</b> ,	·		
	Never				
	Occasionally				
	Often				
5.	Do you talk to them about your future plans?				
	Never				
	Occasionally				
	Often				

6.	Do they help you to learn or unde	erstand things? (1	for exam	ple, school v	vork, your f	family
	history)	Never Occasionally Often				
7.	Do they get involved with things	you like? (for exa	imple, sp	ort, making	things, doin	ng
	enjoyable things together)					
		Never				
		Occasionally				
		Often				
8.	Do they come to school events o	r other activities	that are i	important to	you? (for e	example,
	sporting matches, plays, religious	activities)				
		Never				
		Occasionally				
		Often				
9.	How often do you help your gran example, household jobs)	dparent with son	nething t	hey are doir	ng or makin	g? (for
	, , ,	Never				
		Occasionally				
		Often				
10.	Does your grandparent get involved	ved in telling you	what you	u can and ca	nnot do?	
		Never				
		Occasionally				
		Often				
11.	Do they give you or your family n	noney or gifts?				
100		Never				
-	2 4 6 6	Occasionally				
1		Often				

#### Appendix B

#### Sibling Inventory of Behaviour (SIB)

Can you tell us something about your relationship with your brother/sister?

(Remember we only need you to answer about the brother/sister you feel closet to if you have more than one brother/sister)

For each of the statements below, circle the response that best characterizes how you feel about the statement, where: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = always.

	never	rarely	sometimes	often	always
1. He/she is pleased by progress I make	1	2	3	4	5
2. He/she has fun at home with me	1	2	3	4	5
<ol><li>He/she helps me adjust to new situations</li></ol>	1	2	3	4	5
<ol><li>He/she treats me as a good friend</li></ol>	1	2	3	4	5
5. He/she is concerned for my welfare and happiness	1	2	3	4	5
6. He/she teaches me new skills	1	2	3	4	5
7. He/she accepts me as a playmate	1	2	3	4	5
8. He/she gets ideas for things we can do together	1	2	3	4	5
<ol><li>He/she wants me to succeed</li></ol>	1	2	3	4	5
<ol><li>He/she makes plans that include me</li></ol>	1	2	3	4	5
11. He/she cares for me	1	2	3	4	5
12. He/she shares secrets with me	1	2	3	4	5
13. He/she shows sympathy when things are hard for me 14. He/she tries to	1	2	3	4	5
comfort me when I am upset	1	2	3	4	5
15. He/she tries to teach me how to behave	1	2	3	4	5

Appendix C

Teenage Inventory of Social Skills (TISS)

For each of the statements below, circle the response that best characterizes how you feel about the statement, where: 1 = does not describe me at all, 2 = does not really describe me, 3 = does not quite describe me, 4 = describes me fairly well, 5 = describes me well, 6= describes me totally.

	Does not describe me at all	Does not really describe me	Does not quite describe me	Describes me fairly well	Describes me well	Describes me totally
1. I tell jokes and get other people to laugh	1	2	3	4	5	6
2. I try to get other people to do things my way when working on a group project	1	2	3	4	5	6
3. I stick up for other people when somebody says something nasty behind their backs	1	2	3	4	5	6
4. I forget to return things that other people loan me	1	2	3	4	5	6
5. I make jokes about other people when they are clumsy at sports	1	2	3	4	5	6
6. I ask other people to go places with me	1	2	3	4	5	6
7. I help other people with their homework when they ask me for help	1	2	3	4	5	6
8. I ignore people when they tell me to stop doing something	1	2	3	4	5	6
9. I offer to help people do their homework	1	2	3	4	5	6
10. When I don't like the way other people look, I tell them	1	2	3	4	5	6

	Does not describe me at all	Does not really describe me	Does not quite describe me	Describes me fairly well	Describes me well	Describes me totally
11. I listen when other people want to talk about a problem	1	2	3	4	5	6
12. I laugh at other people when they make mistakes	1	2	3	4	5	6
13. I push people I do not like	1	2	3	4	5	6
14. When I want to do something, I try to talk other people into doing it, even if they don't want to	1	2	3	4	5	6
15. I make sure that everyone gets a turn when I am involved in a group activity	1	2	3	4	5	6
16. I talk only about what I'm interested in when I talk to other people	1	2	3	4	5	6
17. I ask other people for advice	1	2	3	4	5	6
18. I tell other people that they are nice	1	2	3	4	5	6
19. I ignore other people when I am not interested in what they are talking about	1	2	3	4	5	6
20. I lie to get out of trouble	1	2	3	4	5	6
21. I always tell other people what to do when something needs to be done	1	2	3	4	5	6

	Does not describe me at all	Does not really describe me	Does not quite describe me	Describes me fairly well	Describes me well	Describes me totally
22. When I am with my best friend, I ignore other people	1	2	3	4	5	6
23. I flirt with another person's boyfriend/girlfriend when I like him/her	1	2	3	4	5	6
24. I make up things to impress other people	1	2	3	4	5	6
25. I tell other people they played a game well when I lose	1	2	3	4	5	6
26. I offer to share something with other people when I know that they would like it	1	2	3	4	5	6
27. I lend other people money when they ask for it	1	2	3	4	5	6
28. I hit other people when they make me mad	1	2	3	4	5	6
29. I tell people I'm sorry when I know I have hurt their feelings	1	2	3	4	5	6
30. I tell the truth when I have done something wrong and other people are being blamed for it	1	2	3	4	5	6
31. I talk more than others when I am with a group of people	1	2	3	4	5	6
32. I ignore other people when they give me compliments	1	2	3	4	5	6

	Does not describe me at all	Does not really describe me	Does not quite describe me	Describes me fairly well	Describes me well	Describes me totally
33. I throw things when I am angry	1	2	3	4	5	6
34. I offer to loan other people my clothes for special occasions	1	2	3	4	5	6
35. I thank other people when they have done something nice for me	1	2	3	4	5	6
36. I do my share when working with a group of people	1	2	3	4	5	6
37. I call people bad names to their faces when I am angry	1	2	3	4	5	6
38. I keep secrets private	1	2	3	4	5	6
39. I tell other people how I really feel about things	1	2	3	4	5	6
40. I share my lunch with people when they ask me to	1	2	3	4	5	6

#### Appendix D **Approval of the Western Cape Education Department**



Directorate: Research

Audrey, wyngoard@westerncape.gov.za tel: +27 021 467 9272 Fax: 0865902282 Private Bag x9114, Cape Town, 8000 wced.wcape.gov.za

REFERENCE: 20160608 - 1290 **ENQUIRIES:** Dr A T Wyngaard

Ms Chengfei (Echo) Jiao Unit 2 7 Upper Alma Road Rosebank 7700

Dear Ms Chenfei (Echo) Jiao

## RESEARCH PROPOSAL: GRANDPARENTAL INVOLVEMENT AND ADOLESCENTS SOCIAL SKILLS

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

Principals, educators and learners are under no obligation to assist you in your investigation. 2.

- Principals, educators, learners and schools should not be identifiable in any way from the results of the 3.
- You make all the arrangements concerning your investigation. 4
- Educators' programmes are not to be interrupted.
- The Study is to be conducted from 15 July 2016 till 31 August 2016 5.
- No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December). 7.
- Should you wish to extend the period of your survey, please contact Dr A.T Wyngaard at the contact numbers above quoting the reference number? 8.
- A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
- Your research will be limited to the list of schools as forwarded to the Western Cape Education Department. 10
- A brief summary of the content, findings and recommendations is provided to the Director: Research 11.
- The Department receives a copy of the completed report/dissertation/thesis addressed to:

The Director: Research Services Western Cape Education Department Private Bag X9114 CAPE TOWN 8000

We wish you success in your research.

Kind regards. Signed: Dr Audrey T Wyngaard Directorate: Research **DATE: 08 June 2016** 

#### Appendix E Ethics Approval Letter from the UCT Research Ethics Committee

#### **UNIVERSITY OF CAPE TOWN**



Department of Psychology Research Ethics Committee

Rondebosch, 7701

Tel: 27 21 6504607 Fax: 27 21

6504104

E-mail: Lauren.Wild@uct.ac.za

03 June 2016

REFERENCE NUMBER: PSY2016-JXXCHE002

Researcher Name: Chengfei (Echo) Jiao

Researcher Address: Department of Psychology, University of Cape Town

Dear Ms Jiao

# **PROJECT TITLE:** Grandparental Involvement and Adolescent Social Skills Development.

Thank you for your submission to the Department of Psychology Research Ethics Committee.

It is a pleasure to inform you that the Committee has **granted approval** for you to conduct the study.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please quote your REFERENCE NUMBER in all your correspondence.

Yours sincerely

Algendo

Gosia Lipinska

On behalf of the Department of Psychology Research Ethics Committee

#### Appendix F

#### **Parental Consent Form**

Dear Parent:

I am an Honours student in Psychology at the University of Cape Town currently undertaking my research project. I am inviting your child to participate in my research.

The purpose of the survey is to study teenagers' social skills and relationships with others. My study will take the form of a paper survery which asks teenagers about their self-evaluation of their social competence and information regarding their interactions with parents, siblings, and grandparents. Students will be filling out the surveys in a classroom setting where school learning activities are not disrupted. The entire process should not take longer than 40 minutes.

The survey is anonymous and voluntary. There will be no identifying information on the form. We will take strict precautions to safeguard your personal information throughout the study. Your child's information will be kept without his/her name or other personal identifiers, only a code, in a locked file cabinet. Only the researcher and the research supervisor will be able to access your personal information.

Your child's grade does not depend on answering the questions. The survey does not carry any potential risks or distresses. However, your child does not have to fill out any part of the questionnaire that makes him or her feel uncomfortable. Snacks will be provided at the end of data collection process to express my gratitude toward all learners for participating in my research.

If you have questions, concerns, or complaints about the study, please contact the researcher Echo Jiao, at the Department of Psychology, University of Cape Town, jxxche002@myuct.ac.za, 061 969 1917.

Or the research supervisor, Lauren Wild, at the Department of Psychology, University of Cape Town, lauren.wild@uct.ac.za, (021) 650 4607. Or Rosalind Adams, at the Department of Psychology Research Ethics Committee,

Rosalind.adams@uct.ac.za, (021) 650 3417.

If for any reason you DO NOT wish your son or daughter to participate in the survey, please sign this form and return it by (date).
Student's Name (please print):
Parent signature
Date:

#### Appendix G

#### **Adolescent Assent Form**

Dear student,

Hi, my name is Echo Jiao. I am here for a study on the behalf of the University of Cape Town. I am doing a research study to learn about teenagers' social skills and relationships with others.

If you agree to be in our study, we are going to ask you some questions about your relationships with your parents, siblings, and grandparents. Also, questions will be asked on how you see yourselves as related to others.

However, you can ask questions about this study at any time. If you decide at any time not to finish, you can do so without getting any penalties. You can also refuse to answer any questions that make you feel uncomfortable.

The questions I will ask are only about what you think. There are no right or wrong answers because this is not a test. Answering the survey should not take longer than 40 minutes.

If you agree to take part in this study, your responses will be kept confidentially in a safe place where is only accessible to the researcher and the supervisor for the purpose of the study. Your information will be kept without your name or other personal identifiers, only a code, in a locked file cabinet.

If you sign this paper, it means that you have read this and that you want to be in the study. If you don't want to be in the study, don't sign this paper. Being in the study is up to you, and no one will be upset if you don't sign this paper or if you change your mind later.

If you have questions, concerns, or complaints about the study, please contact the researcher Echo Jiao, at the Department of Psychology, University of Cape Town, jxxche002@myuct.ac.za, 061 969 1917.

Or the research supervisor, Lauren Wild, at the Department of Psychology, University of Cape Town, lauren.wild@uct.ac.za, (021) 650 4607.

Or Rosalind Adams, at the Department of Psychology Research Ethics Committee, Rosalind.adams@uct.ac.za, (021) 650 3417.

Snacks will be provided for you to enjoy once you have completed the survey!
Your signature:
Your printed name:
Date

### Appendix H

Figure 1



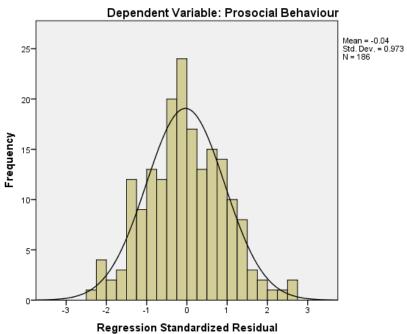


Figure 2

#### Normal P-P Plot of Regression Standardized Residual

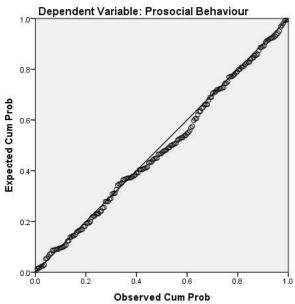
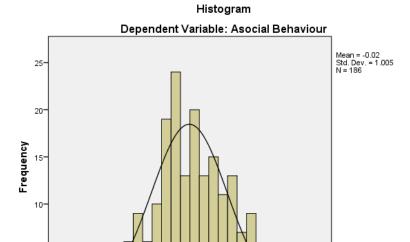


Figure 3



Regression Standardized Residual

Figure 4

5=



