



Prosocial behaviour in secondary school students: Influence of altruistic models and gender

Chinedu Ugwu¹, Sampson Kelechi Nwonyi², Amuche Eucharia Eruchalu¹, Esther Ukwuoma Orji³,
Edith Chiemerie Nwodo^{1,4} & Kalu T. U. Ogba^{1*}

¹Department of Psychology, University of Nigeria Nsukka, Enugu state, Nigeria.

²Department of Psychology and Sociological Studies, Ebonyi State University, Abakaliki.

³Department of Social Sciences, School of General and Basic Studies, Akanu Ibiam Federal Polytechnic, Uwana, Ebonyi state, Nigeria.

⁴Anchor Psychological Services, Abuja.

ARTICLE INFO

Keywords:

Adolescents

Altruism

Gender

Prosocial behaviour

School psychology

Screen media.

ABSTRACT

Majority of adolescents spend most of their time on screen media and this raises concerns about the potential impact of screen media on adolescents' behaviour. This experimental study investigated the influence of altruistic models on screen media and gender on prosocial behaviour (PSB) among secondary school students. Forty students from a secondary school in Nsukka (50% male) were randomly selected to participate in the study. Data was collected by means of test performance scores derived from a self-report helping test. Participants' scores were analyzed by using 2x2 analysis of variance. Results showed that there was statistically significant influence of altruistic model on PSB, but no statistically significant gender difference in PSB, indicating that gender is not a significant variable in PSB. The findings were explained in relation to their implications for day to day social realities. The research limitations of the study were stated, and suggestions were made for further studies.

Introduction

There is always disequilibrium in the society that puts some people at the help receiving end and a few privileged ones at the help rendering end. Recent developments in the world such as violence, terrorism, kidnapping, human trafficking, school shootings and other social vices are few examples of this disequilibrium. These vices and many more have continued and are on the rise in every part of the world. Hence, efforts at developing prosocial behaviour (PSB) in children needs to be intensified. This is because society needs more prosocial individuals now more than ever. Eisenberg and Miller (1987) define PSB as voluntary actions that are intended to help or benefit another individual or group of individuals. These acts include but are not limited to helping, sharing, cooperating, comforting, volunteering, and protecting someone from danger, harm, bullying or victimization. Batson and Powell (2003) suggested that voluntary and intentional actions aimed at helping, sharing with and comforting other people form what PSB is. These actions represent a spectrum of behaviours necessary for the development of a compassionate and meaningful society. Besides developing a more compassionate and meaningful society, research evidence suggests that young children's PSB is instrumental to their long-term school adjustment or academic success (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000) and psychosocial wellbeing (Jones, Greenberg, & Crowley, 2015). PSB has also been linked to greater empathy and more supportive relationships (Markiewicz, Doyle, & Brendgen, 2011), self-confidence and higher grades (Caprara et al., 2000), and antisocial impulse regulation (Eisenberg, Spinrad, & Knafnoam, 2015).

Since most of the child's hours are spent in schools, schools remain one of the most important institutions saddled with the task of preparing the child to be a responsible and concerned member of society. Solomon, Watson, Delucchi, Schaps and Battistich (1996) assert that in addition to mastering academic subject matter, children must come to understand and adopt the central values of their culture and must learn the social skills needed to act effectively on those values. These skills and culture are taught in most schools and where such systematically developed curricula are missing, model figures (such as teachers, peers, counsellors, celebrities, mentors, etc.) become instrumental, consciously or unconsciously in inculcating skills, cultural values and societal norms in school children. Also, as the child in the present world spends most of his/her time viewing models on screen media, observational learning in children is occurring most of the time outside the organized school curricula.

The importance of modelling as a method of acquisition of behaviours has been suggested by previous research (Cruess, Cruess, & Steinert, 2008; Ehlers & Gillberg, 1993; Mohammed & Gallagher, 2017; Passi, Johnson, Peile, Wright, Hafferty, & Johnson, 2013; Watt, Stewart & Cox, 1998). Of great worry is that most model figures recently have reversed societal norms and cultural values and promote (directly or indirectly) antisocial behaviours among school children. Therefore, the need for proactive altruistic modelling in the present school system cannot be overemphasized. The role of the media in promoting social behaviour (antisocial or prosocial) cannot also be overemphasized. Reports of school shootings that have been triggered after a child watched a violent model on the television or played a violent video game abound to confirm this fact. Since

Corresponding author

Kalu T. U. Ogba. Department of Psychology, University of Nigeria, Nsukka, Enugu state, Nigeria

Email: kalu.ogba@unn.edu.ng; Phone: +2348163245405

access to the media has largely increased, little control over the models that children adopt is now affordable. The option might be to deliberately saturate the media available to schoolchildren at school hours with altruistic model figures.

Altruistic models have been shown to influence diverse forms of prosocial behaviour. For instance, servant leadership modelling was shown to build group social capital (Linuesa-Langreo, Ruiz-Palomino, & Elche-Hortelano, 2018). Nejati and Shafaei (2018) reported that students learned to demonstrate greater anonymous, emotional and compliant prosocial behaviour when they had been exposed to ethical supervision. Although, the screen media provides one of the most virtual forms of modelling, research investigating the links between altruism (as observed from screen media models) and prosociality in school children are scarce. Therefore, the present study was conducted to examine the role of altruistic models as viewed on screen media in PSB of school children. It was hypothesized that participants will significantly differ in PSB across levels of altruistic models exposed to. It was also expected that there will be gender differences in prosocial behaviour among the students.

Method

Participants and setting

Participants were 40 (50% male) adolescents who were enrolled in a secondary school in Southeastern Nigeria. They were randomly selected from the penultimate class (SS2) and asked to indicate their consent to participate in the study and told that they were free to withdraw from the study at any point in time without repercussion. The volunteers were asked to pick ballots that either placed them in the experimental or control group. Participants age ranged from 15 to 18 years ($M = 16.5$, $SD = 1.6$). The experiment was conducted in classrooms made available by the school authority.

Materials

The stimulus materials used in this study were an altruistic film (Seven Pounds), a comedy film (*Osuofia* in London), and a self-report helping test. The test was designed to measure prosocial intentions and the extent individuals were willing to voluntarily help another person. The study made use of projectors and laptops which were used to display the stimulus materials to both groups.

Seven Pounds is a 123-minute (Parental Guidance-13) Hollywood altruistic movie in which the lead actor is on a mission. He gives vital parts of his body to those desperately in need of a donor. In showing acts of altruism, he forever changes the lives of seven people.

Osuofia in London is a 105-minute Nollywood comedy drama in which the comedian residing in a village in Nigeria receives news of his brother's demise in London. The comedian had been named sole beneficiary to his late brother's estate in London. The comedian is to travel to London to inherit both estate and fiancé (as is common in Nigerian Igbo tradition). Cultural shock and misunderstanding result in a great comedy of errors.

The Self-report helping test is a self-report multiple choice measure of prosocial intentions developed by the present researchers. Sample items include; if a person in my class is having trouble at home and with school work, I will... (options include, (a) help the person as much as I can, (b) tell the person not to bother me, (c), leave the person alone to work out his/her own problems, (d) agree to tutor the person for a reasonable fee); If I had the money, I would help people pay their debts

because... (options include, (a) I expect others to help me when I am in debt, (b) others had helped me pay my debt, (c) the debtor I am helping will pay me back with interest, (d) I am interested in the benefits of others much more than mine. The self-report helping test yielded adequate reliability ($\alpha=.87$). Three goodness-of-fit indices were computed using SPSS Amos 24 (CFI = .89; RMSEA = .05 and $\chi^2/df= 1.93$) which all indicated an adequate fit for the data.

Procedure

The researchers used well-arranged adjacent classrooms which were isolated from other buildings in the school for the experiment. The participants according to their groups were organized in different classrooms. Prior to being administered the stimulus materials, participants were instructed to carefully watch the film about to be shown to them and maintain maximum silence throughout the duration of the experiment. The experimental group viewed the altruistic film (*Seven Pounds*) while the control group viewed the comedy film (*Osuofia* in London). The experiment was conducted in a serene atmosphere, well-guarded from noise. Participants in both groups were presented with the self-report helping test to respond to after viewing the films. The questionnaires were retrieved from them as soon as they were done responding to the items. Participants were debriefed and reinforced with writing pads and pens after the experiment. The total duration was 2 hours 30 minutes for both groups.

Design and statistics

The study made use of a 2x2 between subject group experimental design and ANOVA statistics was used to analyze the data.

Results

Table 1: Means and standard deviation for influence of Altruistic model and gender on prosocial behaviour

		Mean	SD	n
Altruistic Model	Exp. Group	21.80	4.66	20
	Cont. Group	16.00	6.00	20
	Male	18.95	5.94	20
Gender	Female	18.85	6.42	20

Results showed that participants in the experimental group had a mean score of 21.80 while those in the control group had a mean score of 16.00. Male participants had a mean score of 18.95 in prosocial behaviour while female counterparts had a mean score of 18.85.

Table 2: ANOVA Table showing influence of altruistic model and gender on PSB

Factor	SS	DF	MS	F	p
A (Altruistic model)	336.4	1	336.4	13.91	.03
B (Gender)	0.1	1	0.1	0.004	NS
AXB	22.5	1	22.5	0.93	NS
S/AB (Error)	870.6	36	24.18		
Total	1229.6	39			

Note. NS = Not significant

ANOVA statistics revealed significant influence of altruistic model on PSB, but there was no gender difference in PSB. Specifically, participants in the experimental group had

higher PSB scores than participants in the control group.

Discussion

Results showed that altruistic role models observed in the experimental condition served as an influential factor in prosocial or helping behaviour intentions among secondary school students. The mean scores of participants in the experimental condition were significantly higher than their counterparts in the control condition. This finding is consistent with the theories of Bandura (1986) and Rushton (1980) who theorized that observational learning or modelling influences involvement in prosocial behaviour in children. Modeling altruism led to imitation of such behaviour. An earlier study in observational learning in children by Midlarsky, Bryan and Brickman (1973) found a clear influence of altruistic modelling in prosocial behaviour of schoolgirls. Girls who had observed a charitable role-model donated chips to the poor more than girls who had observed selfish role models. Moore & Eisenberg (1984) also observed that children were likely to imitate observed prosocial behaviour in adults. Bryan and Test (1967) demonstrated that the observation of a helping model often increases the observers' inclination to aid a person in need. Other research (Rosenhan & White, 1987) have shown that the observation of giving or rendering help to a person in need can also enhance the likelihood of subsequent help giving behaviour by the observer.

Results of the study also revealed that males do not differ from females in prosocial behaviour. This finding is consistent with Eisenberg et al. (1996) which indicated that among children, few gender differences in helping exist between girls and boys. Earlier contrasting works by Eagly and Crowley (1986) found that men and women differ in their willingness to engage in certain prosocial actions. This finding can be explained due to many factors such as gender of help recipient, perceived potential danger involved in helping, salience of gender role expectation, etc. For instance, it can be observed that consistent with the culturally valued male role of heroic rescuer, men are more likely than women to place themselves in danger when rendering help. In contrast, women are more likely than men to provide long-term help involving empathy and caretaking. Recent contrasting evidence from research (e.g., Van der Graaff, Carlo, Crocetti, Koot, & Branje, 2017) suggests that taking a longitudinal developmental perspective, marked differences exist in prosocial behaviour development between boys and girls. Crocetti, Moscatelli, Van der Graaff, Rubini. Meus and Branje (2016) reported that boys have lower levels of prosocial behaviour than girls and that these observed differences were greatest at mid adolescence. Stubbs-Richardson, Sinclair, Goldberg, Ellithorpe and Amadi, (2018) also reported in their study that girls responded more prosocially than their male counterparts to bullying in schools.

This study implies that helping behaviour can be learned through observational learning of social models. This therefore means that in various ways, parents, teachers, school counsellors, etc., are instrumental in children's adoption and retaining of PSB. If these sources of influence on children's PSB is harnessed properly, there will be a boost in the development of PSB among children. This study also confirms the social learning principles put up by Bandura (1986). The altruistic role model in the film "Seven Pounds" exerted influence on the PSB of the experimental group. This has implications for movie producers, movie censoring boards, teachers, counsellors, parents and clerics.

Previous research shows that the tendency to engage in PSB is subject to change during adolescence. Sometimes it rises (Eisenberg, Cumberland, Guthrie, Murphy & Shepard,

2005), sometimes it is stable (Nantel-Vivier, Kokko, Caprara, Pastorelli, Gerbino, Paciello, & Tremblay, 2009), and sometimes it falls (Carlo, Crockett, Randall, & Roesch, 2007). This instability in development of PSB simply calls for a more deliberate effort by schools, families and religious bodies in inculcating PSB in adolescents at all levels. For instance, since altruistic modelling on screen media was significant in the tendency to act prosocially in the present study, screen media altruistic models can be presented to school children throughout adolescence in measured doses. This intervention can come in form of leisure activity and the intensity can vary from grade to grade. The idea is that, at all levels of development of prosociality in the child (whether increasing, stable or decreasing), altruistic screen media models should be made available to the growing adolescent. Where, screen media altruistic models are unavailable, stage performances (plays/dramas) and real-life simulations may serve.

Limitations of this study include its sample size and temporal framing. A large sample size with a longitudinal approach to the study of PSB among school children in Nigeria is recommended. This study also did not check for age variance in the findings. It is necessary that future studies check for age variance alongside, locality and socioeconomic status. There might be interesting variances observed along age, locality and socioeconomic findings across cultures.

Conclusion

A more practical approach to inculcating PSB in school children will yield a positive direction for the Nigerian school system and harness vital resources which have implication for improving the lives of students, schools in general and the society at large. It is worthy of note that in making efforts at building PSB in students, schools may need evidence-based directions for selecting and implementing practices and programs that have a demonstrated track record of effectiveness over the years in promoting PSB. However, the role of parents (Dunn, 2014; Eisenberg, Spinrad, & Knafo-Noam, 2015; Grusec, Chapparo, Johnston, & Sherman, 2014) and siblings (Lam, Solmeyer, & McHale, 2012) in modeling altruism cannot be left out.

Further research could focus on answering questions that border around curricula, teaching practices and intervention delivery strategies and methodologies. For instance, what are the most effective curricula, teaching practices/methods and intervention delivery strategies/methods that best promote PSB among students across all ages, gender and socioeconomic background? It would be needful also for researchers to identify how partnerships between schools, families, religious bodies, communities, etc. can be enhanced to best foster development of PSB in children.

References

- Bandura, A. (1986). *Social foundations of thoughts and actions: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Batson, C. D., & Powell, A. A. (2003). Altruism and prosocial behavior. In T. Millon and M. J. Lerner (Eds.), *Handbook of psychology: Personality and social psychology*, (Vol. 5, pp. 463-484). Hoboken, NJ, US: John Wiley & Sons Inc.
- Bryan, J. H. & Test, M. A. (1967). Models and helping: Naturalistic studies in aiding behavior. *Journal of Personality and Social Psychology*, 6, 400-4007.
- Caprara, G. V, Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science*, 11(4), 302-306.

- Carlo, G., Crockett, L. J., Randall, B. A., & Roesch, S. C. (2007). A latent growth curve analysis of prosocial behavior among rural adolescents. *Journal of Research on Adolescence*, 17, 301-324. doi: [10.1111/j.1532-7795.2007.00524.x](https://doi.org/10.1111/j.1532-7795.2007.00524.x).
- Crocetti, E., Moscatelli, S., Van der Graaff, J., Rubini, M. Meeus, W., & Branje, S. (2016). The interplay of self-certainty and prosocial development in transition from late adolescence to emerging adulthood. *European Journal of Personality*, 30, 594-607. doi: [10.1002/per.2084](https://doi.org/10.1002/per.2084).
- Cruess, S. R., Cruess, R. L., & Steinert, Y. (2008). Role modelling-making the most of a powerful teaching strategy. *British Medical Journal (Clinical research edition)*, 336, 1986-1993.
- Dunn, J. (2014). Moral development in early childhood and social interactions in the family. In M. Killen & J. Smetana (Eds). *Handbook of moral development* (2nd ed., 135-159). New York, NY: Psychology Press.
- Eagly, A. H., & Crowley, M. (1986). Gender and helping behavior: A meta-analytic review of the social psychological literature. *Psychological Bulletin*, 100(3), 283-308.
- Ehlers, S., & Gillberg, C. (1993). The epidemiology of Asperger syndrome. *Journal of Child Psychology and Psychiatry*, 34 (8) 1327-1350. doi: [10.1111/j.1469-7610.1993.tb02094.x](https://doi.org/10.1111/j.1469-7610.1993.tb02094.x)
- Eisenberg, N., & Miller, P. A. (1987). The relation of empathy to prosocial and related behaviors. *Psychological Bulletin*, 101, 91-119. doi: [10.1037//0033-2909.101.1.91](https://doi.org/10.1037//0033-2909.101.1.91).
- Eisenberg, N., Cumberland, A., Guthrie, I. K., Murph, B. C., & Shepard, S. A. (2005). Age changes in prosocial responding and moral reasoning in adolescence and early adulthood. *Journal of Research on Adolescence*, 15, 235-260. doi: [10.1111/j.1532-7795.2005.00095.x](https://doi.org/10.1111/j.1532-7795.2005.00095.x)
- Eisenberg, N., Fabes, R., Karbon, M., Murphy, B. C., Wosinki, M., Polazzi, L....Juhnke, C. (1996). The relations of children's dispositional prosocial behavior to emotionality, regulation, and social functioning. *Faculty Publications, Department of Psychology*, 129. <http://digitalcommons.unl.edu/psychfacpub/129>
- Eisenberg, N., Guthrie, I. K., Murphy, B. C., Shepard, S. A., Cumberland, A., & Carlo, G. (1999). Consistency and development of prosocial dispositions: A longitudinal study. *Child Development*, 70(6), 1360-1372.
- Eisenberg, N., Spinrad, T. L., & Knafo-Noam, A. (2015). Prosocial development (pp. 610-656). In M. E. Lamb and C. Garcia (Eds.), R. M. Lerner (Series Ed.). *Handbook of Child Psychology: Social, emotional, and personality development (Vol 3)*. New York: Wiley.
- Eisenberg, N., Spinrad, T., & Knafo-Noam, A. (2005). Prosocial development. In R. Lerner (Editor-in-Chief) and M. Lamb (Vol. Ed), *Handbook of child psychology and developmental science: Vol. 3. Socioemotional processes* (7th ed., pp. 610-656). New York, NY: Wiley-Blackwell.
- Grusec, J., Chapparo, M., Johnston, M., & Sherman, A. (2014). The development of moral behavior from a socialization perspective. In M. Killen & J. Smetana, (Eds.), *Handbook of moral development* (2nd ed., pp. 113-134). New York, NY: Psychology Press.
- Institute of Education Sciences. (2007). What Works Clearinghouse Intervention Report on Caring School Community. Institute of Education Sciences, U.S. Department of Education.
- Jones, D. E., Greenberg, M. & Crowley, M. (2015). Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness. *American Journal of Public Health*, 105(11):2283-2290. doi: 10.2105/AJPH.2015.302630.
- Lam, C., Solmeyer, A., & McHale, S. (2012). Sibling relationships and empathy across the transition to adolescence. *Journal of Youth and Adolescence*, 41, 1657-1670. doi: [10.1007/s10964-012-9781-8](https://doi.org/10.1007/s10964-012-9781-8).
- Larrieu, J., & Mussen, P. (1986). Some personality and motivational correlates of children's prosocial behavior. *Journal of Genetic Psychology*, 147, 529-542.
- Linuesa-Langreo, J., Ruiz-Palomino, P. & Elche-Hortelano, D. (2018). Integrating servant leadership into managerial strategy to build group social capital: The mediating role of group citizenship behavior. *Journal of Business Ethics*, 1-18, doi.org/10.1007/s10551-018-3823-4.
- Markiewicz, D., Doyle, A. B & Brendgen, M. (2011). The quality of adolescents' friendships: Associations with mothers' interpersonal relationships, attachments to parents and friends, and prosocial behaviors. *Journal of Adolescence*. 24, 429-445.
- Midlarsky, E., Bryan, J. H., & Brickman, P. (1973). Aversive approval: Interactive effects of modelling and reinforcement on altruistic behavior. *Child development*, 44, 321-328.
- Mohamed, O. O., & Gallagher, J. E. (2017). Role models and professional development in dentistry: an important resource. *European Journal of Dentistry Education*, 1-7, doi: 10.1111/eje.12261.
- Moore, B., & Eisenberg, N. (1984). The development of altruism. *Annals of Child Development*, 1, 107-174.
- Nantel-Vivier, A., Kokko, K., Caprara, G. V., Pastorelli, C., Gerbino, M. G., Paciello, M., & Tremblay, R. E. (2009). Prosocial development from childhood to adolescence: A multi-informant perspective with Canadian and Italian longitudinal studies. *Journal of Child Psychology and Psychiatry*, 50, 590-598. doi: [10.1111/j.1469-7610.2008.02039.x](https://doi.org/10.1111/j.1469-7610.2008.02039.x).
- Nejati, M. & Shafaei, A. (2018). Leading by example: The influence of ethical supervision on student's prosocial behavior. *Higher Education*, 75(1), 75-89.
- Passi, V., Johnson, S., Peile, E., Wright, S., Hafferty, F. & Johnson, N. (2013). Doctor role modelling in medical education: BEME Guide No. 27. *Medical Teaching*, 35, e1422-e1436.
- Rosenhan, D., & White, G. M. (1967). Observation and rehearsal as determinants of prosocial behavior. *Journal of Personality and Social Psychology*, 5(4), 424-431.
- Rushton, J. P. (1980). *Altruism, socialization and society*. Englewood Cliffs, NJ: Prentice-Hall.

- Solomon, D., Watson, M., Battistich, V., Schaps, E., & Delucchi, K. (1996). Creating classrooms that students experience as communities. *American Journal of Community Psychology, 24* (6), 719-748.
- Stubbs-Richardson, M., Sinclair, H. C., Goldberg, R. M., Ellithorpe, C. N., & Amadi, S. C. (2018). Reaching out versus lashing out: Examining gender differences in experiences with responses to bullying in high school. *American Journal of Criminal Justice, 43*(1), 39-66.
- Van der Graaff, J., Carlo, G., Crocetti, E. Koot, H. M., & Branje, S. (2017). Prosocial behavior in adolescence: Gender differences in development and links with empathy. *Journal of Youth and Adolescence, 47*(5), 1086-1099.
- Watt, M. C., Stewart, S. H., & Cox, B. J. (1998). A retrospective study of the learning history origins of anxiety sensitivity. *Behavior Research and Therapy, 36*, 505-525.