



# Relationship between Social Cognition, Social Adjustment and Pro-Social Behaviour among Undergraduates in Federal Universities in South-East Nigeria

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. Author LIA wrote the protocol for this manuscript and wrote the first draft. Authors AVE and LIA managed the literature searches. Author VNN designed the study, while author CAN managed the analysis of this study. All authors read and approved the final manuscript.*

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## **ABSTRACT**

**Aims:** The thrust of this study was to determine the relationship between social cognition, social adjustment and prosocial behaviour among undergraduates in federal universities in South-east Nigeria.

**Study Design:** The study adopted the correlational survey design.

**Place and Duration of Study:** Undergraduates in federal universities in South-east, Nigeria (Nnamdi Azikiwe University, Awka, University of Nigeria, Nsukka, Federal University of Technology,

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Owerri FUTO, Federal University Ndifun-Alike, Ebonyi State and Micheal Okpara University of Agriculture, Umudike), between January 2023 and April 2023.

**Methodology:** The sample for the study comprised of 1500 undergraduates drawn from two federal universities (University of Nigeria = 780, Nnamdi Azikiwe university = 720). The instruments for data collection were the social cognition questionnaire, social adjustment scale and pro-social behaviour scale. The instruments were validated and its reliability determined using Cronbach alpha reliability statistics ( $r = 0.786$ ,  $r = 0.748$  &  $r = 0.631$ ). Data collected was analysed using Pearson product moment correlation coefficient and t-test for correlation analysis. The research questions were answered using Pearson product moment correlation coefficient, while hypotheses were tested using the t-test for correlation analysis.

**Results:** The findings of the study revealed a high positive relationship between social cognition and prosocial behaviour among undergraduates in federal universities in South-east, and a very high positive relationship between social adjustment and prosocial behaviour among undergraduates in federal universities in South-east. The findings revealed a statistically significant relationship between social cognition and prosocial behaviour among undergraduates in federal universities in South-east. Also the findings revealed a statistically significant relationship between social adjustment and prosocial behaviour among undergraduates in federal universities in South-east, Nigeria.

**Conclusion:** Professional psychologist in collaboration with universities should develop psychological programmes tailored towards behaviours and undergraduates engaging in them.

*Keywords: Social cognition; social adjustment; prosocial behaviour; undergraduates; universities.*

## 1. INTRODUCTION

The university environment is pre-designed for students to engage in learning and social activities. One important aspect of human life that is obviously learnt in the school environment is how to help people voluntarily without attaching any reward to it. This behaviour according to literature is described as prosocial behaviour. In the view of Afolabi [1], "prosocial behaviour is any voluntary action that is carried out with willingness to help an individual or set of people. It refers to the activities that are conducted or planned to help individuals without expecting anything in return. Also, prosocial behaviour is the ability to remember the wellbeing and right of people such that one feels concern and empathy about them and to behave in a way that will benefit them without necessarily thinking of any positive return". Similarly, Eisenberg et al. [2] defined "prosocial behaviour as voluntary behaviour that is intended to benefit another and is not motivated by the expectation of external reward".

"One long-standing issue in the domain of psychological and educational research is understanding why people contribute to charity or help others they have never met before" [3]. "Based on this, researchers treat internal characteristics such as moral reasoning, empathy, or perspective taking as crucial components of prosocial behaviour, as such behaviour is stable and consistent across

situations. Prosocial behaviour, particularly is a behaviour directed at improving society, and has long been understood as an outcome of internal convictions or stable intrapersonal tendency and thus considered difficult to cultivate" [4]. Research conducted by several scholars reported diverse findings on the inter-relatedness of certain variables and pro-social behaviours. Ogunboyede and Agokei [5] examined level of study and altruism behaviour among 145 university students. More so, in a study conducted by Afolabi [1], it was found that age and gender have significant relationship with prosocial behaviour among 294 undergraduate students. Furthermore, Orji [6] carried out a study and found that gender has no statistically significant predictor of altruism among secondary school student. In a similar study, Vaculik et al. [7] found that "gender have no influence on prosocial behaviour among 340 respondents".

On the other hand, [1] investigate "prosocial behaviour among 440 students from two Nigerian Universities. The result revealed that respondents residing in a village are more prosocial than those in a city. Also, cultural/ethnic differences significantly influence prosocial behaviour". Quinn et al. [8] examined "some socio demographic factors of prosocial behaviour among 520 university students. The study found that age positively influence prosocial behaviour amongst the students". The result revealed that level of study influence altruism behaviour among the sampled respondents in another

study done by Fischer, Wallace and Fenton (2000) who found that year of study significantly influence prosocial behaviour among in-school adolescent.

Traditionally, the development of behaviour amongst students in the learning environment has been a primary aim for educators in the Nigerian educational sector. Buttressing further, that responsible behaviour entails self-motivation and self-guidance, and not obedience and compliance to the rules merely in response to external supervision, rewards and punishment. Nevertheless, external factors certainly play a major role in responsible behaviour, so do social cognition. Social cognition according to Quinn et al. [8] “refers to those aspect of mental processing that are shaped by social interaction, real or imagined and which in turn influence subsequent social behaviour”. “Defined more narrowly, social cognition refers to a research orientation that employs cognitive principles to analyze and investigate social psychological topics such social inference, the self and social perception” [8].

Guo [9] affirmed that “social cognition is an important factor that affects prosocial behaviour among individuals. Social cognition includes both objective support and subjective support. Objective support refers to the interaction of material support and social interpersonal communication. It is commonly understood that social cognition plays major role in behaviour and that they influence, and are influenced by one’s environment. Students experience different situation during their educational life. They are faced with various conditions while attending higher education in universities, one of such is most likely to be their social life in the educational environment”. According to Rienties et al. [10] “social adjustment among higher education students is defined as the degree of students’ adaptation to social manner of their education life. Buttressing further, students’ social adjustment shows the amount of their ability to cope with societal requirements and interpersonal demands of their educational life such as taking part in group works, associating with other students and participating in extra-curricular programmes carried out in the educational environment” [11].

In view of this, Fagbenro et al. [12] revealed that “studies carried out reported that learning outcome of students and other behaviours are influenced by the social relations and

interpersonal support of students’ family members and friends”. Further stating, Fagbenro et al. [12] stated that “it has also been found that fitting into social style and educational life causes students to socially adjust well in their academic environment, and this process tend to have strong impact on their pro-social behaviour. Undergraduate in universities have greater opportunities of engaging in certain behaviours that benefit others. Where such engagement is not evident, it could be due to the level of social cognition and social adjustment amongst undergraduates in universities. Presently, individuals especially undergraduate students engage in behaviour that tends to increase their reward and reduce their costs. From this perspective, undergraduate in universities are relatively rational and are concerned about their self-interest”. However, Fagbenro et al. [12] asserted that “it is no longer news that immoral behaviours are on a high increase among today’s undergraduate. Such behaviours include aggressiveness, violent act, lack of respect for others, selfish acts as well as lack of empathy for student to help their colleagues or course mate in courses, assignment, school registration as well as other important school activities”. This has gone long way to affect the social relationship among undergraduates and their peers. However, it is imperative that this unsatisfactory state of affairs be examined so as to fine tune the minds of university undergraduates into engaging in moral behaviours such as prosocial tendency in the society. Based on this, the present study seeks to determine the relationship between social cognition, social adjustment and prosocial behaviour among undergraduates in federal universities in South-east Nigeria. in specific terms, the study determined:

1. The relationship between social cognition and pro-social behaviour among undergraduate in federal universities in South-east.
2. The relationship between social adjustment and pro-social behaviour among undergraduates in federal universities in South-east.

### 1.1 Research Questions

The following research questions guided the study

1. What is the relationship between social cognition and pro-social behaviour among undergraduates in federal universities in South-east?

2. What is the relationship between social adjustment and pro-social behaviour among undergraduates in federal universities in South-east?

## 1.2 Hypothesis

The hypotheses stated below was tested at 0.05 alpha level and 95% confidence level.

1. The relationship between social cognition and pro-social behaviour among undergraduates in federal universities in South-east is not statistically significant.
2. The relationship between social adjustment and pro-social behaviour among undergraduates in federal universities in South-east is not statistically significant.

## 2. METHODOLOGY

This study adopted the correlational survey research design. The study was carried out among undergraduates in federal universities in South-east, Nigeria. The accessible population for the study comprised of 64,997 undergraduates in federal universities in South-east, Nigeria (Nnamdi Azikiwe University, Awka, University of Nigeria, Nsukka, Federal University of Technology, Owerri Futo, Federal University Ndifu-Alike, Ebonyi State, & Micheal Okpara University of Agriculture, Umudike).

The sample for this study was drawn using the multistage sampling procedure. The first stage employed the use of simple random sampling technique to select three (2) federal owned universities (Nnamdi Azikiwe University, Awka = 18,789, University of Nigeria, Nsukka = 20,200) from the existing five (5) federal universities in South-east Nigeria. Using an intended sample of 1500 (University of Nigeria = 780, Nnamdi Azikiwe university = 720), the second stage employed the use of proportionate stratified sampling technique to select students stratified based on institutions using percentages of 52% and 48% respectively. This is in line with Nworgu (2015) who affirmed that stratification could be done along more than one variable at a time.

The instruments for data collection were the social cognition questionnaire, social adjustment scale and pro-social behaviour scale. The instruments were validated and its reliability determined using Cronbach alpha reliability statistics ( $r = 0.786$ ,  $r = 0.748$  &  $r = 0.631$ ). The researcher adopted the direct delivery approach with the help of two research assistants to

administer the instruments to undergraduates from the selected universities. Data collected was analysed using Pearson product moment correlation coefficient and t-test for correlation analysis. Specifically, research questions were answered using Pearson product moment correlation coefficient, while hypotheses were tested using the t-test for correlation analysis.

## 3. RESULTS AND DISCUSSION

**Research question 1:** What is the relationship between social cognition and social adjustment among undergraduates in federal universities in South-east?

**Hypothesis 1:** The relationship between social cognition and social adjustment among undergraduates in federal universities in South-east is not statistically significant.

Data presented in Table 1 shows that there is a high positive relationship between social cognition and social adjustment among undergraduates in federal universities in south-east, Nigeria ( $r = 0.748$ ,  $n = 1500$ ).

Data presented in Table 3 shows that the t calculated value is greater than the t-critical value ( $35.88 > 1.960$ ). The first null hypothesis is rejected. This indicates a significant relationship between social cognition and social adjustment among undergraduates in federal universities in South-east.

The findings of this study revealed a high positive relationship between social cognition and social adjustment among undergraduates in federal universities in South-east. Correspondingly, the findings further revealed a significant relationship between social cognition and social adjustment among undergraduates in federal universities in South-east. The finding agrees with the study of Quinn et al [8] which revealed that age positively influence prosocial behaviour amongst the students. The findings further align with the study of Afolabi [1] which revealed that age and gender of individuals have significant relationship with prosocial behaviour among 294 undergraduate students. On the other hand, the study disagrees with the findings of Onyencho and Afolabi [13] who found that "age and gender of individuals existing in a given society has no significant effect on prosocial behaviour among police officers. The justification for this finding could be that young undergraduates between the ages of 16 -18 years still inculcate the value of their parent which makes them exhibit certain

prosocial behaviour and social adjustment on campus”.

**Research Question 2:** What is the relationship between pro-social behaviour and social adjustment among undergraduates in federal universities in South-east?

**Hypothesis 2:** The relationship between pro-social behaviour and social adjustment among undergraduates in federal universities in South-east is not statistically significant.

Data presented in Table 2 shows that there is a very high positive relationship between prosocial behaviour and social adjustment among undergraduates in federal universities in south-east, Nigeria ( $r = 0.900$ ,  $n = 1500$ ).

Data presented in Table 4 shows that the  $t$  calculated value is greater than the  $t$ -critical value ( $61.75 > 1.960$ ). Hence the second null hypothesis is rejected. On the whole, this indicates a significant relationship between prosocial behaviour and social adjustment among undergraduates in federal universities in South-east.

The findings of the study revealed a very high positive relationship between prosocial behaviour and social adjustment among undergraduates in federal universities in South-east. More so, the finding showed a significant relationship between pro-social behaviour and social adjustment among undergraduates in federal universities in South-east. This finding agrees with Quinn et al [8] who found that age and corresponding social adjustment positively influence prosocial behaviour amongst students. The study further revealed that cultural/ethnic differences significantly influence prosocial behaviour. The result revealed that social cognition influence behaviour (social adjustment) among the sampled respondents. In another study conducted by Fischer et al. [14], the study found that year of study significantly influences prosocial behaviour among in-school adolescent. The justification here could be that undergraduates who are in 100 level are relatively new to the university environment and may not associate freely with peers and as well face little academic pressure which make them engage in certain behaviour believed to be a way of life.

**Hypothesis 3:** The relationship among social cognition, pro-social behaviour and social

adjustment among undergraduates in federal universities in South-east is not statistically significant.

Data presented in Table 5 shows a multiple regression analysis computed to predict social adjustment as it relates to social cognition and prosocial behaviour among undergraduates in federal universities in South east Nigeria. These predictor variables statistically predict social adjustment among undergraduates in federal universities,  $F(2, 1498) = 0.306$ , sig. value =  $0.821$ , with  $r = 0.021$ ,  $r_s = 0.613$  and  $R^2 = 0.613$ . This implies that at 0.05 level of significance social cognition, prosocial behaviour added statistically to the prediction of social adjustment among undergraduates in federal universities in South-east.

the findings relating to the interaction relationship among the variables examined revealed that social cognition, prosocial behaviour added statistically to the prediction of social adjustment among undergraduates in federal universities in South-east. This finding conforms to the finding of Kaljahi [11] which found that the learning outcome of students and other behaviours are influenced by the social relations and interpersonal support of students’ family members and friends. The finding further aligns with Fagbenro et al. [12] who in their study found that “it is no longer news that immoral behaviours are on a high increase among today’s undergraduate. Such behaviours include aggressiveness, violent act, lack of respect for others, selfish acts as well as lack of empathy for student to help their colleagues or course mate in courses, assignment, school registration as well as other important school activities. This has gone a long way to affect the social relationship among undergraduates and their peers”.

**Table 1. Pearson on the relationship between social cognition and social adjustment among undergraduates in federal universities in south-east**

Coefficient	N	Remark
0.748	1500	High positive relationship

**Table 2. Pearson on the relationship between pro-social behaviour and social adjustment among undergraduates in federal in universities in south-east**

Coefficient	N	Remark
0.900	1500	Very high positive relationship

**Table 3. t-test of significant relationship between social cognition and social adjustment among undergraduates in federal universities in south-east**

Correlation coefficient	N	t-calculated	df	α	t- critical	Decision
0.748	1500	35.88	1498	.05	1.960	Significant

**Table 4. t-test of significant relationship between pro-social behaviour and social adjustment among undergraduates in federal universities in south-east**

Correlation coefficient	N	t-calculated	df	α	t- critical	Decision
0.900	1500	61.75	1498	.05	1.960	Significant

**Table 5. Multiple regression analysis for the relationship among social cognition, pro-social behaviour and social adjustment among undergraduates in federal universities in south-east**

Model	R	R Square	Adjusted R square	Std. error		
1	.021 <sup>a</sup>	0.613	0.613	11.464		
Model	Sum of squares	df	Mean square	F	Sig.	
1	Regression	120.568	2	40.189	.306	.821 <sup>b</sup>
	Residual	268889.296	1498	131.422		
	Total	269009.864	1498			

#### 4. CONCLUSION

Based on the findings of the study, it was concluded that there is a high positive relationship between social cognition and pro-social behaviour among undergraduates in federal universities in South-east. It was further concluded that there is a very high positive relationship between social cognition and pro-social behaviour among undergraduates in federal universities in South-east. There was found to be a significant relationship between social cognition and pro-social behaviour of undergraduates in federal universities in South-east Nigeria. Based on this conclusion, it is recommended that the school management should provide an environment which is welcoming to undergraduates and individuals with different traits.

#### CONSENT AND ETHICAL APPROVAL

As per international standard or university standard guideline, participant consent and ethical approval has been collected and preserved by the authors.

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#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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