The effect of moral reasoning and values as the mediator towards student’s prosocial behaviour

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**ABSTRACT**

This study aims to determine the relationship between religiosity, moral reasoning, and internalization of pure values as the mediator of prosocial behaviour among students in Banda Aceh, Indonesia. The Secondary Islamic Education Internalization Scale (SPPIP-M), Behaviour Reasoning Scheme Indicator (UPSTA), and Prosocial Tendencies Measure (PTM) scale were used to measure the religiosity, moral reasoning, and internalization of pure values prosocial behaviour of students. The result showed a link between religiosity, moral reasoning, and internalization of pure values with prosocial behaviour of secondary school students in Banda Aceh.

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Religiosity; moral reasoning; internalization of pure values; prosocial behaviours

**Introduction**

Prosocial or positive social behaviour is the opposite of anti-social behaviour that occurs when people benefit others rather than themselves (Hao et al., 2016; Kavussanu & Boardley, 2009; Luo, 2018; Vorlauffer, 2019). According to Penner (2000), prosocial behaviour benefits others by looking at the norms that prevail in the social living environment. This behaviour is necessary to maintain a person’s active role as a supporter and one being supported (Klein, 2016; Kueh et al., 2017; Malti & Buchmann, 2010). In addition, preliminary studies have been extensively conducted on adolescents’ behaviour type (Eisenberg & Shell, 1986; Haan et al., 1976), which increases with age (Fabes et al., 1999).

**Development of moral and moral reasoning**

According to Kohlberg (1984), the development of moral reasoning is closely related to the structure of thinking about interpersonal conflict situations. Kohlberg (1984) and Ma (2013), classified moral development into three levels, namely pre-conventional (motivated by self-interest), conventional (motivated by keeping social order, rules, and laws), and post-conventional (motivated by social contracts and universal ethical principles) levels. Kohlberg’s theory states that individuals are likely to
reach the highest level of post-conversational moral reasoning, assuming moral issues are judged based on deeper principles and shared ideals rather than self-interest or obedience to laws and regulations (Fang et al., 2017).

Presently, most people have strong moral beliefs in determining right and wrong, even though universal moral values vary across cultures and ethnic groups. However, the moral development of each individual also referred to as moral reasoning, is the ability to analyse various complex issues and problems. Based on various literature, the most influential and studied theory of moral reasoning and development was proposed by Kohlberg (Fang et al., 2017).

Rest (1986) proposed the theory of moral reasoning, which developed a problem-defining test based on the premise that each individual interprets moral dilemmas differently and reaches varying conclusions (Murk & Addleman, 1992; J. Rest et al., 1999). The study conducted showed that age and education explain many differences in moral reasoning. It stated that age and education can explain approximately 30 to 52% of the variance used to define test score problems (Murk & Addleman, 1992). According to Rest & Thoma (1985), years of education are more strongly correlated with higher moral reasoning than age (King & Mayhew, 2002). Rest et al. (1999) proposed a theory on the development of moral reasoning, called the Neo-Kohlbergian approach, by borrowing many of Kohlberg's basic ideas. They described the development of moral reasoning as a distributional shift in which complex ones gradually replace more primitive ways of thinking.

At the beginning of the study on cognitive development, Kohlberg noted that apart from moral reasoning, other processes are essential for moral behaviour. However, Rest (1984) made this process more explicit in a four-component morality model (Bebeau & Thoma, 1999; Wang et al., 2018). The first deals with moral sensitivity, which aims to interpret the situation by focusing on the various actions available and how they affect oneself and others. The second component concerns moral reasoning, which assesses the most justifiable actions. The third component prioritizes morals over other concerns by recognizing that individuals have numerous appropriate and inappropriate concerns on moral choices. The fourth component is related to constructing and implementing actions that serve moral choices. This component focuses on establishing appropriate actions, avoiding distractions, and maintaining the courage to continue (Bebeau & Thoma, 1999; Maeda et al., 2009).

Social problems among students

The need for developing prosocial behaviour is exacerbated by social symptoms, which are in line with the economic growth of the rapidly developing world. The National Center for Statistics BPS (2015) showed that cases such as drug addiction, rape, and incest are among the most prevalent social problems among students. These cases were similar to those of BPS data, including rape, sexual harassment, and incest as common crimes against humanity that affect their victims' psychology with prolonged trauma (Stroebel et al., 2012). Rape is a form of violence against women, which they tend to experience at work, home, and street, irrespective of the time (Suyanto et al., 2019). According to (Wismayanti et al., 2019), several low- and middle-income countries, such as Indonesia, are increasingly realizing the social problem associated with child sexual abuse, which requires effective intervention and prevention strategies. Statistically an average of five to six women are raped daily in Indonesia, which means every 4 hours, someone is raped.

Furthermore, there is an increase in violence and drug addiction among adolescents, which is increasingly recognized as an important public health problem (Schulenberg et al., 2020). Several studies showed that higher levels of violence are strongly associated with increased rates of drug use, such as cigarettes, alcohol, and marijuana (Scal et al., 2003; Weiner, 2002). Therefore, it is important to educate adolescents on the adverse effects of drug and alcohol abuse in school. The study by Riva et al. (2018), Shahraki et al. (2019), and Wang et al. (2018) revealed that age is an important predictor in educating students on the use of drugs and the associated dangers. This is in addition to an increase in the bullying rate among children globally. According to a 2019 UNESCO report, there is a global increase in bullying among students, categorized into four types, namely
physical, psychological/verbal, sexual, and cyberbullying. This condition is still a major problem in primary, secondary, and higher education levels, which adversely affect victims’ emotional and behavioural development. Apart from the impacts described, social violence also impacts the mental and physical health and academic performance of the victims (Jackson et al., 2019; Koyanagi et al., 2019; UNESCO; 2019). Therefore, these issues need to be addressed and controlled early by mitigating a high degree of pure values internalization integrated with knowledge on students, specifically through education.

Myers (2012) stated that the religious factor is important in developing adolescent prosocial behaviour. Mercer et al. (2017) and Read (2015) stated that religiosity is a key component in adolescent identity formation. In this situation, adolescent identity formation is closely related to their involvement in religious services, practices, and activities (McCullough & Willoughby, 2009; Shariff & Norenzayan, 2007). This is in accordance with the study by Krause (2003), which stated that religion helps individuals form the identity and meaning of life.

**Moral emotion and moral reasoning**

Moral reasoning is a cognitive process that underlies why an action is considered morally right or wrong (Malti et al., 2009). Meanwhile, moral emotion and its attributes are actual responses to moral and immoral situations by oneself or from others (Keller et al., 2003). Krettenauer et al. (2013) stated that moral emotion is also an important measure of moral behaviour which is consistently associated with prosocial behaviour. According to Tangney et al. (2007), moral emotions motivate moral behaviour by providing internalized rules with meaning for oneself. Hoffman (2001) and Malti & Ongley ([2014]) identified emotion as a key effective process in the moral development of children’s prosocial behaviour. Additionally, moral reasoning and emotion have been theorized to play an important role in the early development of moral action tendencies and considerations of the welfare of others (Arsenio, 2014; Hoffman; 2001).

Moral development is not limited to moral cognition, such as judgement and reasoning because it includes cognitive and emotional aspects (Gibbs, 2013; Malti et al., 2009). Several aspects of moral cognition and emotions have a close relationship with ongoing interactions because their emergence is dependent on one’s moral cognition (Dentici & Pagnin, 1992; Malti & Latzko, 2010). Both have a moral aspect that is equally important for prosocial behaviour and related actions. According to Dentici and Pagnin (1992), moral cognition generates knowledge structures, which evoke moral emotions. Also, the study by Malti and Krettenauer (2013) found that moral emotions are significantly related to prosocial and anti-social behaviour. This is because its attributes can be positively related to the type of social activities, such as guilt over the moral violation. Moral emotions are focused primarily on known negative emotions such as guilt and shame. Its attributes also have a strong cognitive commitment because individuals need to consider the consequences for themselves and others in the context of moral actions. Therefore, attributes of moral emotions are considered important for the development of prosocial behaviour tendencies.

Teaching and applying values, morals, ethics, and behaviours can help individuals build their self-esteem and personal development in a way that is more relevant to their religion. In addition, personal development based on the appreciation of pure values creates a strong sense of prosocial behaviour in daily life. According to Kumru et al. (2012), prosocial behaviour exemplifies positive and inclusive social feelings, including cooperation, sharing, helping, leadership, expressing empathy, providing verbal support or promotion, and general friendliness. Therefore, this will indirectly assist in developing an integrated education between knowledge, social science, life skills, and Islamic Shariah values among students. In providing answers to study problems in accordance with the focus and objectives of the study, several hypotheses were developed as follows:

**Hypothesis 1 (Ha1):** There are differences in students’ prosocial behavior based on gender and place of residence
Hypothesis 2 (Ha2): There is an effect of religiosity on students’ prosocial behavior with moral reasoning as a mediator.

Hypothesis 3 (Ha3): There is an effect of religiosity on students’ prosocial behavior with the pure value internalization variable as a mediator.

Research methodology

This is a quantitative research with a cross-sectional approach used to collect data from selected individuals over a certain period (Glasow, 2005). The cross-sectional approach was chosen to provide in-depth analysis to an entity in the group, which can be used to express various issues and problems such as explaining attitudes, views, beliefs, feelings, behaviours, etc (Cohen et al., 2007). Furthermore, the cross-sectional approach was selected based on Creswell’s (2014) view, which stated that a cross-sectional study can provide evidence related to the development of prosocial behaviours.

The sample consisted of 649 students selected based on the disciplinary cases of eight high schools in Banda Aceh using a multi-stage cluster sampling technique. The instruments used in this study, namely religiosity, moral reasoning, pure values and prosocial behaviour were measured using the SPPIM-R Secondary Islamic Education Internalization Scale (SPPIP-M) from Mahmood (2006), Behaviour Reasoning Scheme Indicator (UPSTA; Hamzah, 2007), items for the appreciation of pure values (Othman et al., 2015) and the Prosocial Tendencies Measure (PTM) scale developed by (Carlo et al., 2010). The questionnaire instrument also used to measure religiosity, moral reasoning, pure values, and students’ prosocial behaviour contained 30, 14, 29, and 23 items with a reliability value of α = .90, .89, .89, and .89, respectively.

Furthermore, this study examined the role of moral reasoning and internalization of pure values as a mediator of the relationship between religiosity and prosocial behaviour. Two series of simple multiple regression tests were conducted to determine the effect of the mediator variable on the relationship between religiosity and students’ prosocial behaviour. According to Baron and Kenny (1986), the three assumptions that must exist to develop the mediation variable are, first, there is a significant relationship between the independent variable and the mediator. Second, there is a significant relationship between the mediator and dependent variables. Finally, there is a significant relationship between the independent variable (IV) and the dependent variable (DV). The following diagram illustrates the mediation model:

Figure 1 shows a mediation model of the relationship between the independent and interrelated variables in this study:

1. Route a denotes the regression coefficient of the relationship between the independent variable and the mediators.
2. Route b denotes the regression coefficient of the relationship between mediators and the dependent variable.

![Figure 1. Mediation Model Framework.](image-url)
(3) Route c denotes the regression coefficient of the independent variable and dependent variable before being controlled by the mediator variables.

(4) Route c’ denotes the regression coefficient of the independent variable and dependent variable after being controlled by the mediator variables.

Also, four regression coefficients were calculated to determine the mediation relationship in this study. The first conducted the average regression coefficient of the dependent variable (prosocial behaviour) on the independent (religiosity). The second conducted the average regression coefficient of a mediator (moral reasoning) on the independent variable (religiosity). The third conducted the average regression coefficient of the dependent variable (prosocial behaviour) on the mediator (moral reasoning). The fourth conducted the average regression coefficient of the dependent variable (prosocial behaviour) on the independent (religiosity) and intermediate variable (moral reasoning; Baron & Kenny, 1986).

**Research findings**

**Differences in Prosocial Behaviour based on Gender**

Table 1 shows no difference in students’ prosocial behaviours based on gender (\(t = .30; p = .76 > .05\)). However, two aspects of prosocial behaviour also indicated differences in demographic factors, namely community (\(t = −2.11; p = .03 < .05\)) and altruism (\(t = 2.66; p = .00 < .00\)). This shows the prosocial behaviour of male students was higher than females. Therefore, the null hypothesis indicates no significant difference in students’ prosocial behaviour by gender was accepted.

**Differences in Prosocial Behaviour based on Residence**

Table 2 shows the differences in students' prosocial behaviour based on residence factor (\(t = 2.22; p = 0.02 < 0.05\)). Based on the aspects studied, anonymous (\(t = 2.78; p = 0.00 < 0.05\)), request (\(t = 2.30; p = 0.02 < 0.05\)) and altruism (\(t = −3.44; p = 0.00 < 0.05\)) showed significant differences, as opposed to the community, anxiety and emotional aspects. Overall, students living in rural areas were found to

| Table 1. Differences in Prosocial Behaviour based on Gender. |
|-------------------------------------------------------------|
| Gender | N | Mean Rank | t | Sig. |
| Community | | | | |
| Male | 299 | 3.13 | | |
| Female | 350 | 3.02 | | |
| Total | 649 | 2.11 | .03 |
| Anonymous | | | | |
| Male | 299 | 3.55 | | |
| Female | 350 | 3.62 | | |
| Total | 649 | −1.45 | .14 |
| Anxiety | | | | |
| Male | 299 | 3.47 | | |
| Female | 350 | 3.52 | | |
| Total | 649 | −.77 | .43 |
| Emotion | | | | |
| Male | 299 | 3.42 | | |
| Female | 350 | 3.39 | | |
| Total | 649 | .69 | .48 |
| Request | | | | |
| Male | 299 | 3.60 | | |
| Female | 350 | 3.71 | | |
| Total | 649 | −1.65 | .09 |
| Altruism | | | | |
| Male | 299 | 3.16 | | |
| Female | 350 | 3.04 | | |
| Total | 649 | 2.66 | .00 |
| Prosocial Behaviour | | | | |
| Male | 299 | 3.63 | | |
| Female | 350 | 3.76 | | |
| Total | 649 | .30 | .76 |
have higher prosocial behaviour levels than those in urban areas. Therefore, the results indicated that there was no significant difference between students' prosocial behaviour based on residence, hence, the null hypothesis was rejected.

The Effect of Moral Reasoning as the Mediator Variable towards the Relationship between Religiosity and Prosocial Behaviour

Regression analysis was performed to examine the mediator variable’s influence (moral reasoning) on the relationship between religiosity and prosocial behaviour.

For a better understanding, see, Figure 2 as follows:

In Figure 2, the result showed that religiosity had a significant effect on prosocial behaviour without and with the mediator variable which obtained ($\beta = 0.606, p = 0.00$) and ($\beta = 0.628, p = 0.00$), respectively. It also showed that the beta value of the coefficient ($\beta$) has increased.

These results suggested that moral reasoning did not exist as a mediator of the relationship between religiosity and prosocial behaviour of students in a secondary school in Banda Aceh. Therefore, the null hypothesis was accepted (Table 3).

The Effect of Internalization of Pure Values as the Mediator Variable on the Relationship between Religiosity and Prosocial Behaviour

Regression analysis was performed to examine the influence of the mediator (internalization of pure values) on the relationship between religiosity and prosocial behaviour.

![Figure 2. Mediation Model Framework A.](image-url)
Table 3. The relationship between Religiosity and Student Prosocial Behaviours with Moral Reasoning as the Mediator Variable.

| Steps | DV                  | IV             | β    | t     | P   |
|-------|---------------------|----------------|------|-------|-----|
| 1     | Prosocial Behaviour | Religiosity    | .606*| 2.13  | .00 |
| 2     | Moral Reasoning     | Religiosity    | .074*| 3.45  | .00 |
| 3     | Prosocial Behaviour | Moral Reasoning| .321*| 3.42  | .00 |
| 4     | Prosocial Behaviour | Religiosity    | .628*| 1.57  | .00 |

Figure 3. Mediation Model Framework B.

For a better understanding, see Figure 3 below:

In Figure 3, the results showed that religiosity had a significant influence on prosocial behaviour without and with the mediator variable which obtained (β = 0.606, p = 0.00) and (β = 0.199, p = 0.00), respectively. It also showed a decrease in the coefficient beta value (β).

This means that the internalization of pure values is needed as a mediator variable for the relationship between religiosity and students’ prosocial behaviour due to a direct effect. Therefore, the null hypothesis was rejected due to the significant effect of the internalization of moral values as a mediator in the relationship between religiosity and students’ prosocial behaviour in a secondary school in Banda Aceh (Table 4).

Discussion

Differences in Student’s Prosocial Behaviour based on Gender and Residence

The results showed no significant difference in prosocial behaviour between male and female students. This finding suggested that male students’ level of prosocial behaviour was similar to females. However, this is contrary to the study by Madsen et al. (2017), stating that men are more likely to offer help in emergencies for victims in need of help than women. Similar empirical research by Yang et al. (2018) indicated that boys and girls have the same prosocial behaviour towards family, while girls are more prosocial towards friends and strangers than boys. Meanwhile, Veenstra et al. (2008) found that female students are more likely to exhibit empathic and responsible behaviours than their male counterparts that are more likely to help in emergencies.

Table 4. Religiosity and Prosocial Behaviour with Internalization of Pure Value as the Mediator Variable.

| Steps | DV                  | IV                  | B    | T     | P   |
|-------|---------------------|---------------------|------|-------|-----|
| 1     | Prosocial Behaviour | Religiosity         | .606**| 2.18  | .02 |
| 2     | Internalization of Pure Values | Religiosity | .801**| 13.81 | .00 |
| 3     | Prosocial Behaviour | Internalization of Pure Values | .668**| 3.42  | .00 |
| 4     | Prosocial Behaviour | Religiosity         | .199**| .25   | .00 |
|       |                     | Internalization of Pure Values |       |       |     |
and dangerous situations. According to Hoxmeier et al. (2020), in some cases, women show higher prosocial behaviours in assisting victims of trauma, mental health care, counselling, and emotional support than men.

Furthermore, this study showed the differences in the degree of prosocial behaviour based on residence. The analysis indicated a significant difference between students living in urban and rural areas. Overall, students living in rural areas showed higher mean prosocial behaviour scores than those in urban. According to Sng et al. (2017) population density and living costs are negatively correlated with helping behaviours, therefore, individuals residing in densely packed environments are less likely to help others. The chaotic and unstable environment can easily motivate students to act aggressively (Jaffee et al., 2012). Therefore, a rural community that practices fairness and respect becomes the stimulus for individuals’ prosocial behaviour (Strelan, 2007).

**The Effect of Moral Reasoning and the Internalization of Pure Values as Mediators towards the Relationship between Religiosity and Prosocial Behaviour**

It is important to identify the significant influence of two aspects of moral reasoning and the value of pure values as mediator variables on the relationship between religiosity and students’ prosocial behaviour. Therefore, this study conducted two series of simple multiple regression analyses against the hypothesis test for the existence of a moral reasoning variable as the mediator on the relationship between religiosity and students’ prosocial behaviour. This is in addition to the existence of the internalization of pure values as a mediator variable on the relationship between religiosity and students’ prosocial behaviour.

**The Effect of Religiosity on Student Prosocial Behaviour based on Moral Reasoning as the mediator**

Religiosity has a significant relationship with student prosocial behaviour without the contribution of moral reasoning variables. This is based on the regression analysis findings for the absence of significant influence of moral reasoning as a mediator variable on the relationship between religiosity and student prosocial behaviour. It is also in accordance with the study by Hardy and Carlo (2005), which revealed that there is a significant positive relationship between religiosity and obedient prosocial behaviour. The study by Roth (2017) also indicated that prosocial behaviour is highly dependent on a person’s level of empathy, religiosity, and spirituality. Students who adhere to religious teachings involve in prosocial behaviour without deep moral reasoning. Milot and Ludden (2009) stated that the importance of religiosity was a more prominent protective factor against drug use even after considering parental support. A person’s level of religiosity makes a strong contribution to shaping prosocial traits, even under false detectors, religious people still report high moral self-image (Hur et al., 2019; Moulin-stožek et al., 2018; Ward & King, 2018).

Eisenberg et al. (2005) found no significant relationship between moral reasoning and prosocial behaviour. Individuals engage in prosocial behaviour because they transform moral reasoning over time. Children tend to use hedonistic thinking, and prosocial orientation needs to care and agree with their peers. According to preliminary studies, there is not always a positive relationship between student’s moral reasoning and prosocial behaviour, such as understanding that stealing, cheating, bullying, and involving in sexual misconduct is wrong and immoral (Anyanwu et al., 2020; Ugoji, 2014; Van der Graaff et al., 2018).

Laible et al. (2014) stated that moral reasoning allows adolescents to understand the consequences of their actions towards others and analyse the victim’s perspective due to their aggressive behaviour. Therefore, moral reasoning can also promote feelings of responsibility towards others and make adolescents have good prosocial behaviour, preventing them from behaving aggressively.
The Effect of Religiosity on Student Prosocial Behaviour based on Internalization of Pure Values as the mediator

The existence of pure values internalization as the mediator variable for the relationship between religiosity and students' prosocial behaviour can be further strengthened by the results of this study. The result indicated a significant influence of religiosity on students' prosocial behaviour based on the internalization of pure values. This showed that the internalization of pure values contributed to students' prosocial behaviour. Its importance in reinforcing the effectiveness of students' prosocial behaviour is also highlighted in studies conducted by (Hui, 2007; Othman et al., 2015; Zaidin, 2015).

These findings support recent study, which explains a strong relationship between religiosity and prosocial behaviour without a significant difference between school types in terms of students' prosocial characteristics (Arslantürk & Harput, 2020). Other preliminary studies also stated that the variables of religiosity, empathy, and anti-social behaviour cause students' prosocial behaviour. This study shows a strong bond between prosocial behaviour, empathy, anti-social behaviour, and spirituality (Roth, 2017). The implementation of the process that is implanted in learning either through textbooks at school (Widodo, 2018) contributed to the formation of pure values among students, such as the willingness to behave, be polite, disciplined, and friendly (Muhammad & Bakar, 2018).

This is in line with Olivier et al. (2020) study, which stated that internalization of pure values can directly enhance students' prosocial behaviour. It further stated that the six aspects of internalization of pure values, namely appreciation for others, self-esteem, discipline, courtesy, bravery, and patriotism, are important aspects related to students' prosocial behaviour.

This study is also in line with Tarip (2020) opinion that the internalization of pure values and morals can be interpreted through thinking, behaviours, personal attributes, and conversations expressed from an individual's conscience. It was also supported by Vansteenkiste et al. (2018), which claimed that internalization of pure values is a barrier to becoming involved in participating in bad habits (Webster et al., 2021), and it involves other values such as humanitarian, spiritual, and citizenship (Idris, 2015).

CONCLUSION

This study analysed students' prosocial behaviour through a process of Pure Values Education based on their religious beliefs and potentials. According to preliminary studies, Muslim students are unique, and their potential can be sharpened and strengthened for a brighter future. Therefore, the value of Islamic teaching and prosocial moral reasoning needs to be embedded in Pure Values Education in school due to its ability to influence students indirectly. This is also because Pure Values Education is a life-long education at the individual, social, environmental, civilization, and religious levels. The process of building dynamic and engaging student behaviour through Islamic education can lead individuals to unprecedented success as they grow.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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