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The relationship between prosocial behaviours, aggression types and moral—social rule knowledge in preschool children

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Abstract

The objective of the present study was to investigate prosocial behaviour, aggression types and moral and social rule knowledge perceptions of 4–5 year old preschool children. The study sample included 310 children (154 female and 156 male), who were attending a pre-school education institution during the 2017–2018 academic year. A personal information form, Pre-School Social Behavior Scale-Teacher Form and Moral and Social Rule Knowledge Perception Scale were used as data collection instruments. The data were analysed with descriptive analysis, Pearson product-moment correlation coefficient and stepwise regression analysis. In the study, it was determined that there were moderate significant correlations between prosocial behaviour, aggression types and moral and social rule knowledge perceptions of 4–5 year old preschool children. It was also determined that prosocial behaviour and aggression types scores of the children significantly predicted their moral and social rule knowledge perception scores.

Keywords: Prosocial behaviours, aggression types, moral rule knowledge, social rule knowledge.

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1. Introduction

The preschool period (3–6 years) is a critical period for the development of the child. In this period, rapid changes occur in all developmental dimensions. In this period, cognitive development improves the child's awareness on the physical and social environment, and the child starts to experience socialisation more intensely. In the process of socialisation, the child commences to determine her or his place in social environment. In daily life, social interaction occurs almost every moment. Almost all activities and experiences that individuals consider significant are based on relationships with other individuals (Baglama & Demirok, 2016; New & Cochran, 2007). The behaviour of the child towards the society and social life, how the child would get along with others, in other words, the child's social and moral adaptation depends on learning experienced during the initial years of life (Yavuzer, 2012). The preschool children, especially those in the 4–5 age group, experience a critical development in the acquisition of social and ethical provisions and behaviour. Children in this age group begin to tolerate the fact that their desires would not be always fulfilled. The child learns to wait by recognising that the world has rules and others have rights and desires as well. The child, who realises that he/she cannot do what she/he wants all the time, starts judging about the good and bad behaviours (Gizir, 2002; Yavuzer, 2016). Young toddlers on children begin to understand the validity of the norms of justice and care by observing their environment. Children learn social norms of reciprocating helpfulness and of responsibility for helping others less fortunate (Honig, 1993).

Thus, it can be observed that individual–social relations, the concept of self, and adaption in home, school and social environments are more significant. The child chooses friends herself or himself in this period and mostly cooperates with them. How individuals behave in situations they encounter is an indication of their beliefs and moral approach. Every individual develops own moral and social approaches or understands what is right and wrong. Social and moral development is part of the human development (Killen & Smetana 2008; Kurtines & Gewirtz, 2014; Malti, Gasser, & Buchman; 2009; Smetana, 2006; Vale, 2006).

Early determinants of social and moral approaches are crucial since children learn social and moral behaviours in the early years of life by strengthening and consolidation of these behaviours by other individuals. Children use the basic social and moral knowledge they acquire during initial years of life to develop further during the older ages. Ethics involve the ability of the individual to distinguish between right and wrong behaviour. Ethical reasoning includes the thought processes used when making a decision on whether a behaviour is morally acceptable. Moral development is the development of own right and wrong, righteousness and justice principles based on universal principles by an individual. The study was conducted in two different categories based on the perceptions of children on social and moral rule knowledge. The first category was moral justice and includes the concepts of justice and human welfare. Questions, which consider that behaviours have natural impact on the welfare of others, are considered within the domain of ethics. Conversely, the questions, which consider that the adequacy of the behaviour is determined within the social context, are considered within the domain of social influence. Behaviours in this category are governed by social norms used to protect the social structure and order (Arsenio & Lemerise, 2004; Murray-Close and Crick, 2006; Shaffer, 2000).

There are two main components of the development of social and ethical judgments in children: (1) prosocial behaviour or behaviours that favour others and (2) self-regulation including avoiding committing crimes and compliance to the rules and standards (Kurtines and Gewirtz, 1995; Vale, 2006). These two broad categories include prosocial behaviour such as sharing, helping relaxing; self-regulation behaviour, including positive social problem solving (solving problems through negotiation rather than power), as well as their opposities, non-compliance and aggressive behaviour (Kurtines and Gewirtz, 1995; Vale, 2006). Children with prosocial behaviour are comfort, share, help, forgive, wait patiently, donate to charity and act kindly to protect or defend a sibling or a pet (Honig, 2004).

Prosocial behaviour is not simply the absence of aggressive behaviour. Instead, it has a genuine moral quality since it involves thinking about the wellbeing of someone else. Prosocial behaviours are actions favoured by the society and the children are encouraged to acquire these behaviours by the society such as sharing, helping, cooperation and relaxing. Pre-school period is critical for children to acquire prosocial behaviours. Moral maturity and reasoning relate to prosocial actions. Children who either practiced or preached prosocial behaviour had attained higher scores in moral judgment. This is a deliberate volunteer behaviour that does not intend to benefit another (Eisenberg, 1990).

Aggression is defined as the behaviour that is not socially justified and aims to harm individuals or property (Kakavoulis, 1998). Physical/explicit aggression includes behaviour that intentionally damages other individuals' physical well-being such as hitting, kicking, beating and pushing. Relational aggression involves damaging relationships such as breaking up the friendship, or the feeling of exclusion (e.g., excluding a peer from the group when you are angry with her or him). Relational aggression includes harming or threatening to harm or damage friendship. In addition to gossiping, lying or betraying their secrets, deliberate ignorance or exclusion from an activity are also examples of relational aggression (Crick and Grotpeter, 1995). Although both forms of aggression include efforts to injure (hurt) or harm others, these forms of aggression are assessed differently. This is due to two main reasons. First, it is perceived that physical/open aggressive behaviour requires more serious and frequent intervention when compared to other forms of aggression. The second reason is the fact that relational aggression is perceived as less harmful for its targets when compared to physical/open aggression since it is relatively implicit (Craig, Henderson & Murphy, 2000; Crick & Zahn-Waxler, 2003).

Children with relational aggression experience high levels of depression, loneliness, exclusion by their peers and negative self-perception. Furthermore, the targets of children with relational aggression are also depressed, anxious, excluded children by their peers and tend to be alone (Bonica et al., 2003). Depressive affect is defined as being quite sad, discouraged and hopeless emotionally, and moodiness among children (McDevitt, Ormrod, Cupit, Chandler & Aloa, 2013). Depressive affect is the behaviour of avoidance to establish social relationships with peers by increasing the sensitivity of children towards negative relationships and experiences (Bukowski, Laursen & Hoza, 2010). The specific symptoms of depressive affect among pre-school children include non-responsiveness to caregivers, avoiding social relationships with peers, complaining about physical pain, sadness, nervousness, lack of pleasure, whining, crying and excessive self-accusation (Belden, Sullivan & Luby, 2007; Oltmanns & Emery, 2007).

It is very important to identify the attributes that complicate or facilitate interpersonal relations such as aggression, prosocial behaviour and social and moral rule knowledge perception in early childhood, to reinforce the positive ones and to prevent the negative ones before they become permanent. These behaviours become permanent until the primary school years when there is no intervention against early childhood aggression, antisocial behaviour and lack of social and moral rule knowledge perception, and could lead to learning difficulties, solitude, low self-esteem, low self-confidence, academic problems, dropping out of the school, substance abuse, criminal behaviour, bullying, exposure to bullying, high anxiety, panic attack disorder, depression, stress disorders and schizophrenia in the future (Baker-Henningham, Walker, Powell & Meeks-Gardner, 2009; Boivin & Hymel, 1997; Crick and Ladd, 1993; D'Zurilla, Chang & Sanna, 2003; Robichaud & Dugas, 2005; Webster-Stratton & Reid, 2010). The general objective of the present study was to determine the correlation between the prosocial behaviour, the aggression types and the perceptions of moral and social rule knowledge among pre-school children.

2. Method

The present study aimed to investigate the prosocial behaviour, aggression types and moral and social rule knowledge perceptions of 4–5 years old preschool was conducted with relational survey model. The survey model is a research method that aims to reveal and describe a specific situation.

The survey aims to describe the past or present situation as is. The relational survey model, on the other hand, determines whether there is a change in more than one existing cases (Karasar, 2010).

2.1. Participants

The study sample included children between the ages of 4 and 5, attending pre-school education. The study population included children between the ages of 4 and 5, attending pre-school education. Participants were selected based on a simple random sampling method and the demographic characteristics of the participants are shown in Table 1.

Table 1. Demographic characteristics of the participants

		f	%
Age	4 age	152	49.00
	5 age	158	51.00
	Total	310	100
Gender	Female	154	49.70
	Male	156	50.30
	Total	310	100
Mother Education status	Elementary School	83	26.80
	Secondary School	99	31.90
	University	128	41.30
	Total	310	100
Father Education status	Elementary School	88	28.40
	High School	95	30.60
	University	127	41.00
	Total	310	100
Socio-economic Status	Low	116	37.40
	Middle	95	30.60
	High	99	31.90
	Total	310	100

2.2. Data collection tools

2.2.1. The demographic information form

This form was used to obtain information on children's age, gender, parents' education level and socioeconomic status.

2.2.2. Preschool social behaviour scale-teacher form

Preschool Social Behaviour Scale-Teacher Form was developed by Crick, Casas and Mosher (1997) to determine the prosocial behaviour and aggression types of 3–6 years old children based on the perception and assessment of the teachers. The psychometric properties of the scale were tested with principle component analysis and varimax vertical rotation technique. The item factor load of the scale varied between 0.62 and 0.90. The Cronbach Alpha coefficients were 0.96 for relational aggression, 0.94 for open/physical aggression, 0.88 for positive social behaviour and 0.87 for depressive affect (Crick et al., 1997). This form was adapted to Turkish language by Sen and Ari (2011). In confirmatory factor analysis, the scale Chi-square value was calculated as 637.76 ($p < 0.01$), and its ratio to the degree of freedom was 637.76/241 = 2.6. In confirmatory factor analysis, it was determined that RMSEA was 0.08, GFI value was 0.81 and AGFI value was 0.76. Cronbach alpha internal consistency coefficients were 0.95, 0.89, 0.90 and 0.51, respectively. Test-retest reliability coefficients were 0.85, 0.81, 0.73 and 0.56, respectively (Sen & Ari, 2011).

2.2.3. Moral and social rule knowledge perception scale

The scale was developed by Nobes and Pawson (2003). The scale includes 10 pictures about moral rules and eleven pictures about social rules. The scale is evaluated based on the criteria of children's seriousness perception, lack of authority perception, absence of rules and changeability of rules perceptions. The scale is applied through interviews conducted with each child outside the classroom and in a quiet setting. The statements in the moral and social rules seriousness perception dimension of the scale are scored with the following points: the behaviour shown in the picture are correct (0 points), bad (1 point) and very bad (2 points). In other scale dimensions, the positive (1 point) and negative answers (0 points) of the children are scored. High scores indicate that children's moral and social rule knowledge is more accurate. The reliability of the scale was tested with interviews conducted with 20 randomly selected children and it was determined that the internal consistency of the scale was 98.9%. Furthermore, scale internal consistency coefficients varied between 0.83 and 0.90 (Bac-Uslu, 2005).

2.3. Data collection process

The approval of the Institute of Educational Sciences Ethics Committee for the implementation of the study and the approval of the Provincial National Education Directorate to conduct the study in the related schools were obtained. Furthermore, written approval of the participating students' parents and teachers was obtained for the application of the scales. Participation in the study was on a purely volunteer basis. The Pre-School Social Behaviour Scale-Teacher Form was completed by the children's teachers based on their observations about the child. It took teachers about 15 minutes to fill the form for each child. The Moral and Social Rule Knowledge Perceptions Scale was completed by the researcher through individual interviews conducted with children in a quiet room outside the classroom. The interviews conducted to complete The Moral and Social Rule Knowledge Perceptions Scale took about 20–30 minutes for each child.

2.4. Data analysis

Hypotheses such as multiple covariance, normality, extremity, linearity, homogeneity and independence of residual values were tested before the analysis for multiple regression analysis. Covariance exists when there is a high level of correlation between the independent variables. VIF and tolerance values were checked. Tolerance values below 0.10 and no VIF values over 10 were not observed. Also, it was observed that independent variables were not correlated. Normal distribution of data was examined with Kolmogorov–Smirnov Test. It was observed that Kolmogorov–Smirnov values varied between 0.086 and 0.464 for dependent and independent variables. It was identified the normal distribution of all data. Furthermore, analysis of skewness and kurtosis coefficients demonstrated that skewness coefficients changed between 0.046 and 0.354, and kurtosis coefficients changed between 0.240 and 0.746. Lower than 1 skewness and kurtosis values reflected normal distribution. Single variable normality was tested with *Z* values, multivariate normality and extreme values were examined using Mahalanobis Distance test. No extreme values and any factors that affected multivariate normality were identified. SPSS 21.00 was used for examination of data. Statistical significance was accepted as $p < 0.05$. Data were tested with descriptive analyses, Pearson product-moment correlation coefficient and stepwise regression analysis.

3. Results

Mean and standard deviations of prosocial behaviour, types of aggression moral and social rule knowledge levels are presented in Table 2.

Table 2. Mean and standard deviations of prosocial behaviour, types of aggression moral and social rule knowledge levels of preschool children

Variables	Mean	Standard deviation
Prosocial Behaviour	23.5355	7.37597
Physical Aggression	15.8258	9.33112
Relational Aggression	15.0548	7.57403
Depressive/Affective	7.7032	2.65777
Perception Seriousness of Moral Rule	31.8452	7.47998
Perception Seriousness of Social Rule	32.8516	7.49653
Perception Absence Authority of Moral Rule	6.4290	2.32472
Perception Absence Authority of Social Rule	7.4548	2.33093
Perception Absence of Moral Rule	5.5032	2.34521
Perception Absence of Social Rule	7.4419	2.44318
Perception of Exchangeability of Moral Rules	6.8806	2.26024
Perception of Exchangeability of Social Rules	7.3226	2.38098
Total Perception Moral Rule Knowledge	53.2968	11.23631
Total Perception Social Rule Knowledge	59.8774	11.45066

Table 3. Relationship between prosocial behaviour, types of aggression levels and moral and social rule knowledge levels of preschool children

	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1												
2	0.55*	1											
3	0.34*	0.36*	1										
4	−0.50*	−0.45*	−0.30*	1									
5	−0.65*	−0.45*	−0.23*	61*	1								
6	−0.26*	−0.20*	−0.21*	0.48*	0.63*	1							
7	−0.25*	−0.20*	−0.19*	0.48*	0.63*	0.98*	1						
8	−0.24*	−0.20*	−0.19*	0.42*	0.41*	0.41*	0.42*	1					
9	−0.33*	−0.32*	−0.21*	0.67*	0.58*	0.54*	0.55*	0.87*	1				
10	−0.65*	−0.45*	−0.23*	0.61*	0.9*	0.63*	0.63*	0.41*	0.58*	1			
11	−0.26*	−0.21*	−0.19*	0.48*	0.63*	0.98*	0.99*	0.42*	0.55*	0.63*	1		
12	−0.28*	−0.28*	−0.18*	0.50*	0.44*	0.44*	0.45*	0.83*	0.87*	0.44*	0.45*	1	
13	−0.26*	−0.26*	−0.18*	0.49*	0.42*	0.43*	0.44*	0.80*	0.84*	0.42*	0.44*	0.97*	1
14	−0.29*	−0.32*	−0.20*	0.63*	0.51*	0.50*	0.51*	0.81*	0.93*	0.51*	0.51*	0.93*	0.91*

*$p < 0.01$.

1. Physical Aggression, 2. Relational aggression, 3. Depressive/Affective, 4. Prosocial Behaviour, 5. Seriousness of Social Rule, 6. Absence of Social Authority, 7. Absence of Social Rule, 8. Exchangeability of Social Rule, 9. Total Moral Rule Knowledge, 10. Seriousness of Moral Rule, 11. Absence of Moral Authority, 12. Absence of Moral Rule, 13. Exchangeability of Moral Rule, 14. Total Moral Rule Knowledge.

Correlations between variables are presented in Table 3.

Table 4. Predictors of physical aggression

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Physical Aggression	1	P. Seriousness of Moral R.	−0.811	0.054	−15.016*	0.423	0.421	225.485*
	2	P.Seriousness of Moral R.	−1.015	0.068	−15.003*	0.491	0.068	22.360*
		P. Absence of Authority of	1.033	0.218	4.743*			

		Moral R.					
	3	P. Seriousness of Moral R.	−1.018	0.068	−15.025*	0.555	0.064	21.222*
		P. Absence Authority of Moral R.	−1.729	0.640	−4.729*			
		P. Absence of Moral R.	0.813	0.94	−4.607*			

*$p < 0.01$.

Sub-dimensions of moral rule together explained 55.5% of the total variance in physical aggression scores (R^2 = 0.555, $p < 0.01$). Perception seriousness of moral rule contributed 42.3%, perception absence of authority moral rule contributed 6.8% and perception absence of moral rule contributed 6.4% of the total variance (F = 225.485, $p < 0.01$). Other variables did not predict physical aggression score.

Table 5. Predictors of relational aggression

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Relational Aggression	1	P. Seriousness of Moral R.	−0.459	0.051	−8.922*	0.205	0.203	79.603*
	2	P. Seriousness of Moral R.	−0.545	0.066	−8.220*	0.248	0.043	13.995*
		P.Absence of Authority of Moral R.	0.436	0.2013	−3.741*			
	3	P. Seriousness of Moral R.	−0.547	0.066	−8.231*	0.289	0.041	13.197*
		P.Absence of Authority of Moral R.	−0.085	0.889	2.043**			
		P.Absence of Moral R.	−0.529	0.877	−3.633*			

*$p < 0.01$.

Sub-dimensions of moral rule together explained 28.9% of the total variance in relational aggression scores (R^2 = 0.289 $p < 0.01$). Perception seriousness of moral rule contributed 20.5%, perception absence of authority moral rule contributed 4.3% and perception absence of moral rule contributed 4.1% of the total variance (F = 79.603, $p < 0.01$). Other variables did not predict physical aggression score.

Table 6. Predictors of depressive/affective aggression

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Depressive/Affective	1	Perception Seriousness of Moral R.	−0.083	0.020	−4.195*	0.054	0.051	17.601*

*P <.01

Only perception seriousness of moral rule explained 5.4 % of the total variance in depressive/affective scores (R^2 = .054 p<.01). Perception seriousness of moral rule predicted total variance (F =17.601, p< .01). Other variables did not predict physical aggression score.

Table 7. Predictors of prosocial behaviour

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Prosocial Behaviour	1	P. Seriousness of Moral R.	0.610	0.044	13.827*	0.383	0.381	191.196*
	2	P. Seriousness of Moral R.	0.519	0.057	9.154*	0.611	0.228	92.352*
		P. Absence of Authority of Moral R.	1.524	0.159	9.610*			
	3	P. Seriousness of Moral R.	0.456	0.057	8.015*	0.829	0.218	87.122*
		P. Absence of Authority of Moral R.	0.381	0.182	2.543**			
		P. Absence of Moral R.	1.495	0.160	9.334*			

*$p < 0.01$.

Sub-dimensions of moral rule, perception absence authority of moral rule and perception absence of moral rule together explained 82.9% of the total variance in relational prosocial behaviour scores ($R^2 = 0.829$; $p < 0.01$). Perception seriousness of moral rule contributed 38.3%, perception absence of authority moral rule contributed 22.8% and perception absence of moral rule contributed 21.8% of the total variance ($F = 191.196$, $p < 0.01$). Other variables did not predict physical aggression score.

Table 8. Predictors of physical aggression

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Physical Aggression	1	Perception Seriousness of Social R.	0.810	0.054	−15.040*	0.423	0.422	226.187*
	2	Perception Seriousness of Social R.	−1.008	0.068	−14.906*	0.493	0.070	23.247*
		Perception Absence of Authority of Social R.	−1.060	0.220	−4.821*			
	3	Perception Seriousness of Social R.	−0.992	0.069	−14.305*	0.572	0.079	26.540*
		Perception Absence of Authority of Social R.	1.056	0.225	−4.698*			
		Perception Absence of Social R.	−1.076	0.209	−5.152*			

*$p < 0.01$.

Sub-dimensions of social rule, perception absence authority of social rule and perception absence of social rule together explained 57.2% of the total variance in relational physical aggression scores ($R^2 = 0.572$; $p < 0.01$). Perception seriousness of social rule contributed 42.3%, perception absence of authority social rule contributed 7.0% and perception absence of social rule contributed 7.9% of the total variance ($F = 226.187$; $p < 0.01$). Other variables did not predict physical aggression score.

Table 9. Predictors of relational aggression

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Relational Aggression	1	P. Seriousness of Social R.	−0.458	0.051	−8.914*	0.205	0.203	79.466*
	2	P. Seriousness of Social R.	−0.538	0.066	−8.128*	0.250	0.045	14.658*
		P. Absence of Authority of Social R.	−0.693	0.181	−3.829*			
	3	P. Seriousness of Social R.	−0.501	0.067	−7.434*	0.537	0.082	27.554*
		P. Absence of Authority of Social R.	−0.544	0.218	2.492**			
		P. Absence of Social R.	−0.888	0.169	−5.249*			

*$p < 0.01$.

Sub-dimensions of social rule, perception absence authority of social rule and perception absence of social rule together explained 53.7% of the total variance in relational physical aggression scores ($R^2 = 0.537$; $p < 0.01$). Perception seriousness of social rule contributed 20.5%, perception absence of authority social rule contributed 4.5% and perception absence of social rule contributed 8.2% of the total variance ($F = 79.466$; $p < 0.01$). Other variables did not predict physical aggression score.

Table 10. Predictors of depressive/affective

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Depressive/ Affective	1	P. Seriousness of Social R.	−0.083	0.020	−4.215*	0.055	0.051	17.764*

*$p < 0.01$.

Only perception seriousness of social rule explained 5.5% of the total variance in depressive/affective scores ($R^2 = 0.055$, $p < 0.01$). Perception seriousness of social rule predicted total variance ($F = 17.764$; $p < 0.01$). Other variables did not predict physical aggression score.

Table 11. Predictors of prosocial behaviour

Dependent Variables	Models	Independent variables	*B*	SE	*t*	R^2	$\triangle R^2$	*F*
Prosocial Behaviour	1	Perception Seriousness of Social R.	0.608	0.044	13.793*	0.382	0.380	190.236*
	2	Perception Seriousness of Social R.	0.509	0.057	9.012*	0.617	0.235	95.688*
		Perception Absence of Authority of Social R.	1.541	0.157	9.782*			
	3	Perception Seriousness of Social R.	0.443	0.056	7.969*	0.864	0.247	102.414*

Perception Absence of Authority of Social R.	0.355	0.180	2.417**
Perception Absence of Social R.	1.508	0.149	10.120

*$p < 0.01$.

Sub-dimensions of social rule together explained 86.4% of the total variance in relational prosocial behaviour scores ($R^2 = 0.864$; $p < 0.01$). Perception seriousness of social rule contributed 38.2%, perception absence of authority social rule contributed 23.5% and perception absence of social rule contributed 24.7% of the total variance ($F = 190.236$; $p < 0.01$). Other variables did not predict physical aggression score.

4. Discussion

Initially, it was determined that there was a negative significant moderate correlation between children's physical aggression, relational aggression and depressive affects, and moral and social rule knowledge perception subscales. There was a positive significant and moderate correlation between prosocial behaviour of children and moral and social rule knowledge perception subscales. Based on this study finding, it can be argued that the children with low moral and social rule knowledge perception exhibited higher number of aggression types and the children with higher moral and social rule knowledge perception exhibited more prosocial behaviour. Malti and Krettenauer (2013); Miller, Eisenberg, Fabes, and Shell (1996); Findlay, Girardi and Coplan (2006); Hawley and Geldhof (2012) determined that there was a positive correlation between children's moral attitudes and their prosocial behaviour and there was a negative correlation between children's moral attitudes and antisocial behaviour.

Perceptual seriousness of moral rule was the most effective negative predictive variable for physical and relational aggression; perception of the absence of moral authority and perception of the absence of moral rule were the additional negative predictor variables. In other words, children who experience difficulties in perceiving the seriousness of moral rule, which is one of the sub-dimensions of moral rule knowledge perception, would exhibit more physical and relational aggression. The moral rule seriousness perception is the ability of the child to judge the inaccuracy of the presented moral problem. Based on the study findings, the child exhibits less physical and relational aggression in proportion to her or his perceptions about the wrongness of the presented moral problem. The perception of the absence of moral rule authority is a predictor of physical and relation aggression. In other words, children, who have difficulty in obeying the moral rules in the absence of a moral authority, are more likely to exhibit physically and relation aggressive behaviour. Children in early childhood are aware of the fact that moral rules are determined by the authorities. They demonstrate full obedience to these rules determined by the authority. Furthermore, children in early childhood have limited knowledge on the social position of the authority and this knowledge increases with age (Laupa, 1991). Thus, the perception of the absence of moral rule may have contributed to the negative prediction of physical and relation aggression.

Furthermore, the perception of the absence of moral rule is a predictor of physical and relation aggression. The perception of the absence of a moral rule is the requirement for the non-violence of the moral rule, although no one provides information about that moral rule. The child, who obeys to the moral rule more when the moral rule was not identified, exhibits less physical and relation aggression. Regardless of whether it is identified as a rule or not, children under the age of 7–8 accept all rules that they learn in daily life absolutely. Most importantly, in some cases, the child does not understand that she or he has to decide alone and that the rules can change. The perception of the

rules by children varies based on their experiences and age. Thus, children's perception of the absence of ethical rule is a negative predictor of physical and relation aggression (Ustun, 1994). Arsenio and Lemerise (2004), Gasser and Keller (2009), Gibbs (2003), Johnston and Krettenauer (2010) demonstrated that children's aggressive behaviour predicted their moral reasoning.

Children's perceptions of the seriousness of moral rules were the most significant predictor of prosocial behaviour. Children who experience difficulty in perceiving the seriousness of the moral rule would exhibit less prosocial behaviour. Based on the study findings, as much the child perceives that the presented moral problem is wrong, the child exhibits prosocial behaviour the most. The perception of the absence of moral rule authority is a predictor of the prosocial behaviour. Children who experience difficulties in obeying the moral rule in the absence of an authority exhibit less prosocial behaviour. Furthermore, the perception of the absence of moral rule is a predictor of prosocial behaviour. The child, who obeys the moral rule when the moral rule is not specified, exhibits higher prosocial behaviour. In a study, where Guler (2015) investigated the effect of social game on the moral rule knowledge of preschool children, it was reported that the perception of seriousness of moral rules, perception of perception of the absence of moral rule authority and the perception of moral rule constancy of the students in the study group, where they were more exposed to social games, were significantly higher when compared to the control group students. The above-mentioned finding demonstrated that the increase in children's social development increased children's perception of moral rule knowledge.

Perception of seriousness of social rule is the most significant negative predictor for physical and relation aggression. Also perception of the absence of social rule authority and perception of the absence of social rule are the additional negative predictors. Children, who experience difficulty in perceiving the seriousness of the social rule, would exhibit higher physical and relation aggression. The perception of the seriousness of social rule is the ability of the child to perceive how wrong the presented moral problem is. The study findings demonstrated that as much the child considers the presented social problem is wrong, the child exhibits physical and relation aggression behaviour the less. The perception of the absence of social rule authority is a predictor of physical and relation aggression. Children, who experience problems in obeying the social rule in the absence of an authority, are more likely to exhibit physical and relation aggression behaviour. The study findings demonstrated that the child, who obeys the social rule in the absence of an authority, exhibits less physical and relation aggression.

Furthermore, the perception of the absence of social rule is a predictor of physical and relation aggression. The perception of the absence of social rule is the requirement of not violating the social rule although no one provides information about the rule. The child, who obeys the social rule when the social rule is not specified, exhibits less physical and relation aggression. Marcus and Kramer (2001) found that children's aggression behaviour is an important predictor of social competence and positive social behaviour. Nelson, Robinson, Craig and Hart (2005) reported a negative correlation between children's relational and physical aggression and their sociometric scores. Children with high relational and physical aggression scored lower sociometric points.

For depressive affect, the perception of the seriousness of the social rule is a negative predictor. Children, who experience difficulties in perceiving the seriousness of the social rule, would exhibit higher depressive affect. Nelson et al. (2005) reported a negative correlation between social competence and sociometric scores of children. In other words, children who experienced problems in social competence behaviour were more excluded and left alone by their peers.

The perception of seriousness of social rule is the most significant positive predictor for prosocial behaviour. Children, who experience difficulty in perceiving the seriousness of the social rule, would exhibit less prosocial behaviour. The current study findings supported the above-mentioned perspective by revealing that the perception of the seriousness of social rule was the most significant predictor of prosocial behaviour. The study findings demonstrated that as much as the child considers that the presented problem is wrong, the child exhibits prosocial behaviours the most. The perception

of the absence of social rule authority is a predictor of prosocial behaviour. Children, who experience problems in obeying to social rules in the absence of authority, exhibit less prosocial behaviour. Based on the study findings, the child, who obeys the social rule in the absence of an authority, exhibits more prosocial behaviour. Furthermore, the perception of the absence of social rule is a predictor of prosocial behaviour. The child, who obeys the social rule in the absence of a specified social rule, exhibits more prosocial behaviour. Nelson et al. (2005) reported a positive correlation between children's prosocial behaviour and their sociometric scores. Children with high prosocial behaviour scored higher sociometric points. In a study, where Guler (2015) investigated the effect of social game on the moral rule knowledge of preschool children, it was reported that the perception of seriousness of moral rules, perception of perception of the absence of moral rule authority and the perception of moral rule constancy of the students in the study group, where they were more exposed to social games, were significantly higher when compared to the control group students.

5. Conclusion

Results of the study demonstrated that the increase in social development of children increased children's perceptions of social and moral rule knowledge. Children who experienced problems in social competence behaviour were more excluded and left alone by their peers. Children who experience difficulties perceptions of social and moral rule knowledge would exhibit more physical and relational aggression.

6. Recommendations

Based on the study findings, it is suggested to educational program that would develop the moral and social rule knowledge perceptions of pre-school children and evaluate the results. Future studies can be conducted to determine the factors that affect children's moral and social rule perceptions.

The most important limitation of the present study is the fact that it was conducted with 4–5 year old children of middle income families. Thus, further research can be conducted with children in different age groups and economic levels, and the findings of the two studies can be compared. The research is repeated in different countries and the results are comparable.

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