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## CHILD-REARING PRACTICES AND TEMPERAMENT OF CHILDREN: ARE THEY REALLY DETERMINANTS OF CHILDREN'S AGGRESSION?

Supra Wimbarti

Gadjah Mada University

### ABSTRACT

*Very few studies on children's aggression conducted in the Eastern culture, even though studies on children's aggression in the Western culture are numerous. This study attempted to examine the roles of various childrearing practices and temperament of children in contributing to children's aggression in Javanese culture. Fifty-eight preschool children and their mothers participated in this study. Data were collected by means of school and home observation, and interview with the mothers. Level of maternal education, nurturant of the mothers, and several types of temperament of the children significantly predicted children's aggression.*

**Key words** : Child-rearing practice, temperament of children, children's aggression.

*Supra Wimbarti, born in Yogyakarta August 7, 1959, is a lecturer in the Faculty of Psychology, Gadjah Mada University, Yogyakarta. She took her undergraduate study in the same faculty and finished her Master of Science in the Department of Family Relations and Child Development, Oklahoma State University, USA. She is active in various national and international scientific meetings; some of them are Child Development Meeting (New Orleans, USA, March, 1993), Enhancing Gifted Children in Indonesia (Yogyakarta, August, 1996), and Health Science Meeting (Manila, Philipina, September 1996).*

### INTRODUCTION

**T**here are many studies of aggression with Western populations (Attili & Hinde, 1986; Eron, 1982; Feshbach, 1970; Hartup, 1974; Hinde, 1985; Huesmann, Eron, Lefkowitz, & Walder, 1984; Hyde, 1984; Lagerspetz, Bjorkqvist, & Peltonen, 1988; Olweus, 1980; Parke & Deur, 1972; Perry, Kusel, & Perry, 1988; Pope, Bierman, & Mumma, 1991; Pulkkinen, 1984; Younger, Schwartzman, & Ledingham, 1985), however there is little research which examines children's aggressive behavior in developing countries (Mintum & Lambert, 1964). Crime statistics from International

Police (1988) records highlight the existence of wide variations in the rate of violence and aggression around the world. According to these records, murder rates in the United States are ten to twenty times higher than in other industrialized nations, and are even higher when compared with developing countries. For example, in the United States in 1988 there were roughly 5,665 crimes (murder, sex offenses, serious assault, theft, breaking and entering, and fraud) per 100,000 inhabitants compared to only 152 per 100,000 in Indonesia.

In accounting for these differences it has been suggested that culture determines not only the rate of violence (Goldstein & Segall, 1983), but also how much aggression is tolerated within a society and how it may be expressed (Parke & Salby, 1983). In Indonesia, quiet self-control is highly regarded (Kuntjaraningrat, 1985). As a result, Indonesians refrain from aggressing in response to provocations that would otherwise evoke powerful retaliation from persons in similar circumstances in other cultures.

Beliefs about aggression and differences in childrearing practices may partially explain cultural variations in aggressive behavior. Various cultures hold contrasting views concerning the appropriateness of aggression and reasons for its occurrence (Fraczek, 1985; Osterweil & Nagano-Nakamura, 1992). For example, a study by Osterweil and Nagano-Nakamura indicated that Japanese mothers viewed aggression as a natural part of their children's behavior but believed that it should be expressed within the family where it can be regulated and therefore do little serious harm. In contrast, Israeli mothers believed that aggression mainly a response to external provocations, and they believed that aggression should be expressed outside the family

rather than within it. Such contrasting beliefs about aggression influence childrearing practices in various cultures and in turn, help to explain why cultural differences exist in the rate and intensity of many of forms of aggression which tend to persist over time (Fraczek & Kirwil, 1992).

Studies of the childrearing correlates of aggressive behavior showed consistent findings. Aggressive children tend to come from homes in which the parents are rejecting, disinterested in their child's development, are lacking in warmth and affection, are indifferent or permissive toward their children's expression of aggression, tend to use physical punishment, and tend to use love-oriented discipline (Becker, 1964; Feshbach, 1970; & Martin, 1975). In Sweden Olweus (1980) found that mother's negativism toward the child and mother's permissiveness for aggression were two variables that contributed to children's aggression. A longitudinal study which spanned three years conducted by Eron (1982) indicated that rejection by parents was related to children's aggression in school. The less satisfied the parents were about their child's accomplishments, manners, and behaviors, the more aggressive that was child in school. Surprisingly the results had no relationships to the nurturance of the parents. One would expect that parents who were more nurturant would have children who were less aggressive. In Poland and Finland, Eron (1982) reported a similar result, but the relation seemed stronger for boys than for girls.

Both interparent and inraparent inconsistency in discipline practices have implications for children's aggression. Parke and Deur (1972) posited that interparent inconsistency involves disagreement and inconsistency between the parents in disciplinary practices, whereas inraparent inconsistency involves the failure of one parent



to discipline a child consistently for an infraction each time it occurs. These two researchers found that children who received inconsistent reward and punishment for their aggressive behavior were more resistant to the use of consistent punitive control. However, this study only looked at intraagent consistency and mechanically delivered noxious noise, thus raising the question of the ecological validity of the study. Another study which looked at the interagent consistency of punishment (Sawin & Parke, 1979) showed that aggression occurred highest in the inconsistent discipline condition, followed by consistent approval and consistent ignore, and lowest in the consistent disapproval condition.

Other research indicates that children's aggressive behavior may be linked to specific temperamental qualities. Recent evidence suggests that difficult infants (i.e. those who are irritable, unpredictable, and hard to soothe), may be more likely to develop aggressive behavior patterns at later ages. For example, Thomas, Chess, & Birch (1968) from their New York Longitudinal Study (NYLS) found that children who developed behavior problems (included aggressiveness), had a "difficult" temperamental pattern at earlier ages. Aggressive children were more active, more irregular, had lower thresholds, were low on adaptability, and were rated high on intensity, persistence, and distractibility. A longitudinal study spanning for five years was conducted with six month-old babies (Bates, 1987). The mothers were asked on a temperament questionnaire that allowed researcher to identify "difficult" babies. It was found that the same mothers were periodically evaluated their children's aggressive behavior, and that temperament ratings were quite good predictors of which children would display greater amounts of aggression.

Research on the relationship between aggression and temperament in children is still very rare. The existing research in this area is found only in Western culture, and little or none ever done in Indonesia. The fact that childrearing practices vary from society to society, and the development of temperament in children is influenced by the context where the children live. Therefore, studies on childrearing practices and temperament, and their relation to aggression in children are needed.

The aims of this study were to determine what demographic factors influence aggression in children, and to understand the relative contribution of childrearing practices and temperament in children's aggression.

## METHODS

### Subjects

Fifty-eight preschool children (33 boys & 25 girls) and their parents participated in this study. They were recruited from Syuhada mosque of Yogyakarta. The children ranged in age from 48 to 71 months ( $M = 63$ ;  $SD = 6.28$ ). Their preschool experience ranged from 2 to 27 months ( $M = 12.98$ ;  $SD = 5.59$ ). Twenty six children were first born, 17 were second born, 11 were third born, two were fourth born, and two were fifth born. Four children had no siblings, 28 had one sibling, 18 had two siblings, six had three siblings, and two subjects had siblings more than three. Father's education ranged from 12 to 22 years ( $M = 16.71$ ;  $SD = 2.58$ ), and mother's education ranged from 9 to 22 years ( $M = 15.07$ ;  $SD = 2.51$ ). Thirty-four fathers (58.62%) were government employees and 24 (41.38%) were employees of private companies. Twenty-six mothers (45%) were government employees, 14 mothers (24%)

were employees of private companies, and 18 mothers (31%) were housewives.

### Measures and Procedures

To measure the aggression, children were individually observed for 10 minutes during indoor and 10 minutes during outdoor activities using Social Behavior Checklist (Howes, Galluzzo, & Meyer, 1989). Both physical and verbal aggression of the children were recorded. The behaviors included in physical aggression were kicking, pushing, pinching, hair pulling, throwing objects deliberately, punching, or taking toys being used by other child. The behaviors included in verbal aggression were teasing, annoying, yelling, swearing, screaming, and name-calling. The number of times the child aggressed either physically or verbally was counted as child's aggression score. Interrater reliability was calculated at the beginning, mid-way, and at the end of observational data collection. Cohen's kappas interrater reliability ranged .90 to .95 for physical aggression and .87 to .94 for verbal aggression.

The childrearing variables were examined using several methods. To assess maternal permissiveness towards aggression and maternal physical punishment, a subset of items from Patterns of Childrearing Interview (Sears, Maccoby, & Levin, 1957) were used. Only questions concerning aggression were included, these were permissiveness of aggression among siblings, toward parents, and toward other children; and parental punitiveness of child's aggression. Answers for each item were scored on a 5 point scale. Point 5 was given if mother was very permissive towards aggression/was very punitive if her child aggresses. A research assistant was trained to interview the mothers using the guidelines from Sears, Maccoby, & Levin

(1957). Another assistant was trained to score the interview, and 30% of the interview was graded to establish reliability. Interrater reliability between the researcher and assistant researcher was .87. Differences in the rating between the researcher and assistant researcher was resolved with discussion.

Maternal nurturance and restrictiveness were measured using Block Child Rearing Practices Report (Rickel & Biasatti, 1982). This measure was translated into Bahasa Indonesia, and then back translated into English. The scale consists of 40 items in the forms of questionnaire that utilized a 7-point Likert scale. High scores in the nurturance or restrictiveness items indicates high maternal nurturance or restrictiveness. Cronbach's alpha for nurturance was .86 and for restrictiveness was .79.

The consistency of discipline between mother and father was measured via home observation procedures. This procedure was derived from Sawin and Parke' study (1979) in the laboratory that has been modified for use in the home setting. Mother's and father's/other adult's response of children's aggression at home toward sibling, peer, mother, father, and other persons in the families was observed and coded. Because typical Indonesian families do not only consist of father-mother-and children, but also of a housekeeper, uncle, or aunt, Indonesian children may have more than two disciplinary figures. At least two authority figures had to be present during the observation. Before observation was conducted, the mother was asked about the other disciplinary figure beside herself. This person then was confirmed to be the second disciplinary agent. The following responses were recorded from both mother's and other disciplinary agent's behavior: reward, punishment, and undetected. Inconsistency was scored if mother



responded with reward and the other agent responded with punishment for a child aggressive behavior, or vice versa. If both agents have the same responses to an aggressive behavior, a consistency of discipline was scored. In the case when observer noticed a child's aggression but could not decide parental response (e.g., parents were in other room), undetected was scored.

Observations were scheduled for three different times: two stressful mornings and one relaxing week-end. Each observation lasted for one hour, so each family was observed for three hours.

Cohen kappa's interobserver reliability has been counted for each response at the beginning, mid-way, and at the end of home visit data collection, yielded the reliability coefficient .90, .93, .97 respectively.

To measure children's temperament, parents were asked to complete the Parent Temperament Questionnaire for Children. This measure was constructed by Thomas and Chess (1977) to assess the temperament of children between the age of three and seven years. This 72-item questionnaire contains nine domains: activity level, rhythmicity, approach-withdrawal, adaptability, sensory threshold, intensity of reaction, quality of mood, distractibility, and attention span persistent. This measure was translated to Bahasa Indonesia and was back translated to English again. The Cronbach's alpha ranged from .49 to .78.

A questionnaire was also given to mothers to provide the information about mother's and father's age, education, occupation, number of children, age of the child, sex of the child, preschool experience, and extra curricular activities the child joined.

## RESULTS

The results will be divided into 2 sections; the first section describes the quantitative findings and the second section describes qualitative findings.

### Quantitative Results

*Socio-Demographic influences on aggression.* To examine whether there were any influences of socio-demographic factors on aggression, correlation analysis on the demographic variables with aggression was conducted. The results are displayed in Table 1.

Table 1  
Correlations of Demographic Variables with Aggression

| Demographic Variables | Aggression |
|-----------------------|------------|
| Birth order           | .22        |
| Child's age           | .06        |
| Father's age          | .11        |
| Father's education    | -.06       |
| Mother's age          | .08        |
| Mother's education    | -.32*      |
| Preschool experience  | -.04       |
| Number of siblings    | .19        |

\* $p < .05$

Mother's education was negatively correlated with children's aggression ( $r = -.32$ ,  $p < .05$ ). No other correlations reached significance.

*Sex Differences.* To examine whether there were any sex differences in children's aggression, the Yuen method was applied. Yuen method compares trimmed-means (20% trimming) of two variables being examined. It takes care of outliers and heavy-tailed distribution that can decrease the

power (Wilcox, 1996). As shown in Table 2, there were no sex differences in children's aggression. Parents tend to be more inconsistent in their discipline toward boys than girls (Yuen's  $t = 33.57$ ,  $p < .001$ ,  $Mt$  boys = 4.95,  $Mt$  girls = 1.33). Boys were physically more active than girls (Yuen's  $t = 2.27$ ,  $p < .05$ ,  $Mt$  boys = 3.95,  $Mt$  girls = 3.56).

Table 2

Yuen's  $t$  Test Statistics and Trimmed-Mean Scores of Children's Aggression, Childrearing Practices, and Temperament

| Variable            | Yuen's $t$ | Mt     |        |
|---------------------|------------|--------|--------|
|                     |            | Boys   | Girls  |
| Aggression          | 1.05       | 4.00   | 2.8    |
| Childrearing:       |            |        |        |
| Inconsistency       | 33.57***   | 4.95   | 1.33   |
| Nurturance          | .40        | 103.81 | 102.47 |
| Restrictiveness     | .26        | 103.29 | 104    |
| Permissiveness      | .95        | 10.57  | 10.67  |
| Punitiveness        | .40        | 8.09   | 8.37   |
| Temperament:        |            |        |        |
| Activity Level      | 2.27*      | 3.95   | 3.56   |
| Adaptability        | .49        | 5.09   | 4.99   |
| Approach/Withdrawal | 1.11       | 4.94   | 4.56   |
| Distractability     | .01        | 4.48   | 4.48   |
| Intensity           | 1.71       | 3.98   | 3.77   |
| Mood                | .60        | 4.73   | 4.75   |
| Persistence         | 1.35       | 4.70   | 4.51   |
| Rhythmicity         | .46        | 3.98   | 3.90   |
| Threshold           | 1.99       | 3.50   | 3.08   |

\*  $p < .05$ \*\*\*  $p < .001$ 

*Childrearing Practices and Temperament.* To examine the relative contribution of childrearing practices and temperament, a series of zero-order regression analyses were performed. The first regression analysis of the five childrearing practices and children's aggression yielded significant finding for "nurturance", with regression coefficient =  $-.29$ ,  $p < .05$ . A second regression analysis of the nine temperament variables, "persistence" and "threshold" significantly predicted children's aggression with regression coefficient =  $-.28$ ,  $p < .05$ ; and  $.23$ ,  $p < .05$ , respectively. Table 3 shows these results.

Table 3

Regression Analysis of Childrearing Practices, Temperament and Children's Aggression

| Variable            | R   | F     | df     | Beta  |
|---------------------|-----|-------|--------|-------|
| Childrearing:       | .29 | 5.03* | (1,56) | -     |
| Inconsistency       |     |       |        | .05   |
| Nurturance          |     |       |        | -.29* |
| Restrictiveness     |     |       |        | -.06  |
| Permissiveness      |     |       |        | .07   |
| Punitiveness        |     |       |        | .01   |
| Temperament:        | .28 | 4.84* | (1,56) | -     |
| Activity Level      |     |       |        | 0.6   |
| Adaptability        |     |       |        | -.01  |
| Approach/Withdrawal |     |       |        | .11   |
| Distractability     |     |       |        | -.13  |
| Intensity           |     |       |        | .14   |
| Mood                |     |       |        | .02   |
| Persistence         |     |       |        | -.28* |
| Rhythmicity         |     |       |        | .04   |
| Threshold           |     |       |        | .23*  |

\*  $p < .05$



### Qualitative Results

This section analyzes four children's behaviors qualitatively. These children are an aggressive boy and girl, and a non-aggressive boy and girl. All data are based on the indoors and outdoors observation at school, home observations, and parent and teacher descriptions.

**Aggressive Children.** The first child was a boy, aged 62 months. Prior to the data collection, he had 13 months preschool experience. This boy lives with his aunt and his three siblings. His parents were living in Sulawesi and visited their children once a month. The father was 52 years old, and a college graduate and the mother was 44 years old, and a high-school graduate. His older brothers were 25 and 23 years old, and his sister was 21 years old. His parents almost never disciplined him. They explained this by saying that because they seldom see him, during a few days each month they are together they want to indulge the child. His aunt also indulges him, giving him all he wants.

In the preschool class, the teacher often sent him to the corner because of his improper behavior. Instead of raising his hands or asking quietly, he frequently shouted in class. He also often disturbed other children sitting next to him, and he cried when he did not get what he wanted from his teacher or classmates. He had difficulty sitting still. Outdoors he was very active. Often times other children complained to teachers because of his behavior.

The second subject was a girl, aged 65 months. She had 10 months preschool experience. She lives with her mother, siblings, and a housekeeper. Her father worked in another city. Father was 42 years old and a college graduate. Her mother was 35 years old, and a high-school graduate.

As the youngest in the family this child was given a lot of attention from mother and housekeeper. At school she joined the Iqro' (learning to read the Qur'an, she was in book 1). In the class she could not sit for a long time, and often disturbed her friends by repeatedly asking questions. When the other children did not answer her questions she would push and kick them.

**Non Aggressive Children.** The first child was a boy, aged 64 months, had seven months preschool experience. He was the first child in the family, and has a three year old sister. He lives with both parents, and his grandparents. His father was 39 years old, a college graduate and was a government employee. His mother was 35 years old, also a college graduate, and also a government employee. His mother asserted that even though she worked full-time she still could find sometime in the afternoon to play with her son. She and her husband also still could find time to go to the shopping center with all family members during the week-end.

During the interview with his mother, she asserted that usually he goes to her with any problems. When her children quarrel, she tells the child to stop and that he has to take care of his sister, then she brings the younger away from the subject. She also inculcated "good behavior" such as politeness, give to the needy ('zakat'), and respect to the elderly (especially his grandparents) via story-telling during bed-times. During home observations, observer recorded more consistent discipline than inconsistent between his mother and father. At school this child joined the Iqro', and he was in book 4 (out of 6 books). During the indoors observations, he listened quietly. Even though he seemed bored with a class activity, he could sit still - alter his sitting position-lean his head on the table - or move to other available chair quietly.

The second non-aggressive child was a girl, aged 69 months and had 15 months preschool experience. She is the first child in the family and has a younger brother. Her father was 39 years old, a Ph.D and worked as a college professor. Her mother was 32 years old, has a Master's degree and also taught in a college. During several home observations, the observer found that the family was praying together, including the child. The mother described that she let her daughter know right away if her daughter misbehaves. She also posited that disputes between children are normal as long as they do not involve physical aggression. She would tell her child not to quarrel, because it is improper. She never spanked her children. Her husband is quiet. At school the child had already finished the *lqro'*, and had started to read the real Qur'an. During indoors activities she always able to sit quietly.

## DISCUSSION

### Socio-Demographic Influences on Aggression

This study found that children of mothers with higher education expressed less aggression than children of mothers with less education. This study was consistent with Weigel study (1985) on demographic associations with aggression of preschool children. He found that maternal education was related to decreased aggressive behaviors in their children, and also that children of single parents exhibited more aggression than children with two parents. This finding may be related to the notion that more educated mothers are exposed to more information from books, magazines, and other media than are less educated mothers (Becker, 1964). Exposure to various media may enable mothers to learn about child development especially

about childrearing in non-aggressive ways.

### Sex Differences

This current study found no sex differences in children's aggression. This result is inconsistent with the major findings of sex differences in aggression (Hyde, 1984; Maccoby et al., 1974, 1980; Tieger, 1980). These prior studies also found that boys and men are not only more physically aggressive than girls and women, but also more verbally aggressive. However, the result of the current study is similar to other cross-cultural studies by Whiting & Edwards (1973) which found no sex differences in retaliatory aggression among Kenyan, Okinawan, Indian, Filipino, and New England preschoolers.

The fact that there were no sex differences in children's aggression could stem from specific socialization experiences that boys and girls receive early in their life. In the Western culture, Frodi, Macauley, & Thome (1977) posited that as a result of socialization, females usually are more susceptible than males to guilt and anxiety over the expression of aggression, which under many situations but not all circumstances, will inhibit their aggression. The Javanese of Indonesia do not embrace the notions of "stand for yourself" or "an eye for an eye, a tooth for a tooth". Instead the Javanese value emotional control and the ability to calm one's own feelings of hostility and aggression and the feelings of others in order to avoid face-to-face confrontation. This behavior is valued not only for boys and men but also for girls and women. As a result, the Javanese culture does not tolerate aggression either for boys or girls.

Parents have clear cultural stereotypes concerning the qualities associated with children of different sexes, which in turn, could lead to differences in their treatment



to boys and girls. Kuntjaraningrat (1985) posited that the Javanese families continue to value certain sex stereotypic behaviors which are appropriate for boys and girls. For example: boys are allowed to play around the neighborhood with their friends, go around the city on bikes, or play soccer games. Girls, however, are encouraged to stay at home, read books, or chat with friends at home or at friend's house.

Even though the Javanese still have these stereotypes, there are higher social values that guide the life of the people. These values are "rukun" (maintain harmonious and positive relationships), "gotong-royong" (interdependency), and "tepaselira" (emphasizing with others and being aware of one's own limitations). Being "rukun", according to Javanese culture, does not mean that people should not have conflict with others. Rather, as Geertz (1961) stated among the Javanese, overt-conflict with others is avoided. Being "rukun" is maintaining "the harmonious social appearance", so people still may have conflict with others but they do not show it overtly.

Javanese avoid overt-conflict with others by being or acting "jothakan": a condition where a person does not want to meet and/or talk to the other person he/she is having a conflict with. With "jothakan", one can avoid verbal and physical confrontation. Parents and other adults prefer this means to avoid aggression among young children, and aggression among adults.

Another major Javanese value is "gotong-royong": helping other people in need. Javanese parents also teach their children that their neighbors are also their family. Consequently, children have also to respect their neighbors as they respect their own parents, and they have to help neighbors who are in need. "Gotong-royong" is parallel with the Islamic principle of "zakat" (to

give in). In this study, all the children came from Moslem families who hold not only Javanese values, but also Islamic principles. These principles include (in hierarchical order): pledging that Allah is the Only God and Muhammad is His prophet, praying 5 times a day, fasting during the Ramadhan month, "zakat" or give in two-and onehalf percent of annual income for the needy, and perform the pilgrimage to Mecca.

Still, another Javanese value is "tepaselira". Javanese children are constantly reminded to consider other people's feeling, and to imagine how they would feel if somebody else does certain thing to them. For example: mothers with soft voices constantly remind children not to be noisy because grandmother is sleeping. Via this reminder mothers not only instruct the children to be quiet, but moreover they teach children to feel how is it if somebody is noisy while they are sleeping. The three values mentioned above, are not compatible with aggressive behavior. However, whether these values may serve as inhibitors of aggression needs further study.

### Childrearing Practices and Temperament

In this study, out of five childrearing variables, only maternal nurturance predicted children's aggression. In the present study, inconsistency in parental discipline did not predict children's aggression. In this study, generally interparent consistency (between mother and father) discipline was more salient. That is, both mother and father were more consistent in their discipline than inconsistent. However, intraparent consistency of discipline in the mothers themselves as the primary disciplinary agent was not tapped in the home observation, which could have been a source of children's aggression.

Mothers who often use physical punishment or who are too permissive toward their children's aggression have more aggressive children (Becker, 1964; Feshbach, 1970; Martin, 1975; Olweus, 1980). This argument was not supported in the present study. It is also true for restrictiveness of the mothers. However, mothers who were more nurturant had less aggressive children. In light of the social learning perspective, the physical punishment that the children receive from their parents can be imitated by the children and adopted in the future when they encounter aggressive situations. Mothers in this study used only low to moderate physical punishment both in the severity and the forms of punishment. It maybe that mothers in this sample had moderately high education and they did not use a lot of physical punishment, which may account for the lack of aggression present in their children's behavior. Whether Javanese physical punishment, if present, was predictive of children's aggression is open for further investigation.

The reason why there was very low aggression observed in the children's behavior may also be because the restrictiveness in the Javanese environment both at home and at school. The Javanese society is the "paguyuban" society. This means that people who one often encounters in the work-place, at the mosque, at school, and other social institutions will be considered as "family". Inside this "paguyuban" society, each person is very much demanded to be "rukun", "gotong royong", and "tepa selira", because in that way social order and peacefulness can be maintained. The result of this system is that almost every one knows every one else in the "paguyuban". Consequently, this "paguyuban" serves as the control system for behavior of its members. Improper behavior such as aggression is very restricted

for all members. "Paguyuban" controls its member's behavior via guilt and shame. Starting early in a child's life, parents or other adults in the "paguyuban" inculcate "guilty feelings" and shame for improper behaviors such as impoliteness, cruelty, and aggression.

The contribution of children's temperament to aggression was confirmed in the present study. "Difficult" temperament in four and five year-old boys defined as combination of high activity level and intensity of reaction was predictive of aggressive behavior in adolescence (Olweus, 1980). In addition, higher and irregular "activity" level, lower "threshold", low on "adaptability", and high in "intensity", "persistence", and "distractibility" were associated with aggression in young children (Thomas, Chess, & Birch, 1968). Using the instrument as the above studies, the present study found that preschool children who were rated by their mothers as high in "persistence" and low in "threshold" had more observed aggression. Thomas and Chess (1977) described children who were low in "threshold" as being very sensitive to odors, unpleasant smells, ugly colors, lights, or tight clothing. Aggressive children may feel these stimuli as very irritating for them, even though for non-aggressive children the same kind of stimuli do not irritate. High persistence in children was described by Thomas et al (1977) as eagerness to engage in an activity, always remembers promises the parents give to them, do not need any assistance in doing things. The behaviors of persistent children who have mild mood usually are acceptable to the family. But, if their persistency is combined with intense expression of mood, these children may express anger, loud protest, and temper tantrum that may cause irritation to the persons around them (Thomas et al, 1977). These irritation might provoke



aggression of their peers, and in return these children model the peers to behave aggressively.

## CONCLUSIONS

The current study found some supports to the understanding of socializing agents of children's aggression. In Javanese culture, nurturant of mothers and temperament (persistence and threshold) of children are the salient agents of aggression in preschool children. There were no sex differences found in this study. The Javanese values and parental beliefs in childrearing may be able to buffer children from displaying aggressive behavior. This explains why low occurrence of children's observed aggression was found among the Javanese children.

The qualitative analyses showed that children who joined the *iqro'* in higher chapter or reading the Qur'an were less aggressive than those who were not. Reading the Qur'an is an intellectual activity in which the children not only required to be able to distinguish each Arabic alphabets that are different from the international ones, but also be able to spell and sound them in a particular manner. This activity also requires the child to behave properly during the reading. Children in this study joined this activity at school, consequently they were always in constant supervision of the teachers that would not tolerate aggressive behaviors.

While the results revealed in this study were substantial, they must be viewed with caution for several reasons. The finding of children's observed aggression suggested that Javanese children had low observed aggression. Data collection of the children's aggression was conducted at a preschool affiliated with a mosque. The low occurrence of aggression was likely due to the

restrictiveness of the environment and the duration of observation (only 20 minutes). Observing behavior in longer periods of time and in other settings would provide more sample of aggressive behaviors. Childrearing practices vary across cultures (Segall, 1983) and are influenced by cultural values and parental beliefs. The measure of childrearing practices in the current study have been adapted to the way how typical Javanese mothers rear their children. For example: the typical punishment of American mothers has been altered to typical Javanese physical punishment, but yet the measure failed to predict children's aggression. Even though the Patterns of Child Rearing Interview Guides (Sears et al, 1957), and the Block Child Rearing Attitudes Report (Rickel & Biasatti, 1982) have been widely used, it could not predict the Javanese childrearing practices in conjunction with children's aggression. This might be due to the fact that Javanese rearing practices are based on Javanese values and parental beliefs which were not tapped by the measure used in the current study.

The home observation in the current study only measured interparent consistency of discipline, and did not measure the intraparent consistency of discipline. There is a possibility that observed aggression in the current sample was related to intraparent consistency of discipline rather than interparent consistency of discipline.

Future research in the area of children's aggression should consider the different settings of data collection. Sample of children behaviors can be obtained not only from school setting, but also from the home setting with longer duration of observation. Lastly, future reserach should attempt to replicate and expand on the present study in larger sample and broader age range. Longitudinal or cross-sectional studies will be beneficial for improving our understanding about children's aggression.

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