IPA
International Journal of Psychology
Vol. 6, No. 2, Summer & Fall 2012
PP. 99-111

Iranian **P**sychological
Association

Assessment of Social-Emotional Skills Development of Children Aged 4-6 Years in Tehran Kindergartens

Roya Yavarian, PhD Student*
Department of Psychiatry
Urmia University of Medical Sciences

The main purpose of this Ex post facto study was the assessment of social-emotional skills development of children aged 4-6 years in Tehran kindergartens. One hundred children aged 4 to 6 years from six kindergartens in different areas of Tehran were randomly selected. The research instrument was CAMS (curriculum and monitoring system) social-emotional skills development chart. The assessment of children social-emotional skills development was done by interviewing with their mothers and teachers and by observing the children. The results showed significant differences between the social-emotional skills scores of the 4-6 years old children and the criterion scores. Meanwhile, the qualitative analyses indicated that children in these age groups had problem in some skills such as being able to tolerate frustration and pointing out differences between self and others remarkably. Finally, the results highlighted the importance of the cultural-social-educational factors.

***Keywords*:** curriculum and monitoring system (CAMS), developmental assessment, social-cultural factors

The importance of the early years of life is well known and has major effects on healthy development (Maggi, Irwin, & Hertzman, 2005). This period of life is the time of great development and of vulnerability (Cooper, Masi, & Vick, 2009). Three domains of early child development have been recognized in healthy life course: physical, social-emotional, and linguistic-cognitive (Maggi et al., 2005).

There are different theories in the context of child development, some of which are related to the social-emotional development. One of the comprehensive theories is the Erik Erikson's (1950) theory. He describes the critical steps in person relationships with the social world. He believed

that development occurs in consecutive and clearly defined stages and each stage must be appropriately resolved for development to continue effectively, otherwise maladjustment will be occurred in all following stages (Sadock & Sadock, 2007). Another theory is Bronfenbrenner (2000) ecological systems focused on the social context which children live and people who effect their development. This theory has five environmental systems which show the effects of family, school, peers, teachers, play and work environments, culture and historical situations on development (Berk, 2007).

The development of proper social-emotional skills during the early childhood years presents a challenge to both parents and professionals because it is a prerequisite to the effective use of many other behavioral skills such as, the ability to get along with others (Mitchell, & Hoagland, 1992) and later academic achievement (Oades-Sese, Esquivel, Kaliski, & Maniatis, 2011). Negative early experiences can influence children's cognitive, behavioral, and social-emotional development (Cooper, Masi, & Vick, 2009).

It has been known that a significant number of children show psychopathological conditions and some of these problems that emerge in the developmental period often persist (Carter, Briggs-Gowan, & Davis, 2004). Children with preceding mental health problems at preschool age had a remarkably higher risk for child mental health problems at the end of four-year study (Beyer, Postert, & Furniss, 2012). These problems have negative effects on children's functioning, development and school readiness (Cooper et al., 2009).

Early emerging behavioral disorders need intervention to improve the social-emotional skills development and to prevent severe emotional and behavioral problems among children (Carter et al., 2004). It is noteworthy that early childhood intervention programs have significant effects on improving and enhancing child development and reducing the demand for social services across the life course. Furthermore, decision makers have

proposed early childhood intervention as a prevention policy that pays for itself (Karoly, Kilburn, & Cannon, 2005; Rolnick & Grunewald, 2003).

To ensure these intervention programs are successful, accurate developmental assessment is critical. Developmental assessment includes all of the activities that explore children's developmental needs and strengths. This type of assessment is also the early measurement of children at risk for motor, communication, cognitive or social-emotional delays that may interfere with learning, growth, and development that may need further diagnosis, intervention and evaluation. In recent years major progress has been made in the assessment of children's social-emotional problems and psychopathology (Minnesota Department of Health, 2010). According to the above mentioned information and considering the importance of the social-emotional development in children, it appears that the study of social-emotional skills development situation could be useful for identification of the problems and recommendations.

Research questions and hypotheses

1. How is the social-emotional skills development situation of children aged 4-6 in Tehran kindergartens?
2. Are there any relationship between the number of siblings and social-emotional skills development?
3. There are no differences between social-emotional skills development of girls and boys.

Method

Ex post facto study was conducted in six Tehran kindergartens from February to December 2010.

Participants

Statistical population of this study was all of the Tehran kindergartens. One hundred children aged 4 to 6 years from six kindergartens in different areas of Tehran were selected according to a random cluster sampling.

Forty-nine children were 4-5 years old and 51 were 5-6 years old (girls, 42, boys, 58). 67% of them were only child and 33% had one sibling.

Measurement Tool

The research instrument was CAMS (curriculum and monitoring system) social-emotional skills development chart (Mitchell et al., 1992). CAMS is a developmentally based assessment and intervention program for infants and preschoolers. This program covers five curriculum areas: cognitive, language, motor, self-help and social-emotional skills and each skill has an assessment chart. These skills were collected by the study of the scientific resources and have been approved and used frequently by psychologists and educational specialists 15 years before its publication (Mitchell et al., 1992). The social-emotional skills chart is useful for overview of social skills that most young children learn from birth to five years of age. This chart includes 44 basic social-emotional skills which each basic skill has 1-4 accessory skills that lead to the total of 97 skills in the chart. With this chart the researcher could collect data during naturally occurring opportunities. The possible scores ranged from 0 to 97. The child should acquire these 97 skills at the end of 5 years of age, for instance, at the end of the first year the child should acquire 24 skills that the criterion score will be 24 and at the end of the second year the criterion score will be 45 and finally at the end of the fifth year the criterion score will be 97.

We used CAMS social-emotional skills chart because the skills not only are based on child development but also are associated with teaching suggestions which allows teachers and parents select appropriate teaching suggestion for children.

Procedure

The aim of the study was explained to all of the mothers and kindergarten teachers who signed the consent form. The assessment of children social-emotional skills development was done by interviewing the mothers and teachers and by observing the children during 1 month in

each kindergarten. The CAMS social-emotional skills chart was filled out during the observation. The data were analyzed by descriptive statistical methods, single sample t-test and Pearson Correlation (SPSS version 16). None of the children had physical, cognitive, emotional-behavioral or linguistic problems.

Results

The findings of the CAMS social-emotional skills chart were analyzed in two age groups (4-5 & 5-6 Years old). The scores were between 30 and 97. For better description of the data, the scores were divided into seven groups. As shown in Table 1, these two age groups had similar problems. For example 63.3% of children in the age group 4-5 and 64.7% of children in the age group 5-6, had scores between 91-97. Confidence interval 95% for social-emotional skills scores of children in the age group 4-5 and 5-6 were 82.59 -90.05 and 87.80-92.70, respectively.

Table 1
Frequency and Percentage of Social-Emotional Skills Scores According to Age Group.

Score Range	4-5 years *N*	%	5-6 years *n*	%
30-40	1	2.0	0	0
41-50	0	0	1	1.9
51-60	2	6.0	0	0
61-70	3	6.3	1	1.9
71-80	7	14.3	2	3.9
81-90	5	10.2	14	27.6
91-97	31	63.3	33	64.7

For the exact analysis of the social-emotional skills of the children, descriptive statistical features were shown in Table 2. The 2nd column of this Table shows the range of the social-emotional skills scores according to the CAMS social-emotional skills chart. For instance, the criterion score of 4-5 year old children should be 77-97. The 3rd column of the table presents the observed score ranges which were lower than the criterion score ranges in both age groups. The 4th column shows the median scores of the social-emotional skills. For example, in the age group 4-5, 50% of the children have scores more than 92 and 50% of them have less than 92.

Table 2
Median, Criterion and Observed Score Ranges According to Age Group

Age Group	Criterion score range	Observed score range	Median score
4-5 years	77-97	37-97	92
5-6 years	77-97	44-97	93

Single sample *t*- test was another method for analyzing the scores of the social-emotional skills and answering to the first question of this research. According to this method the mean score for each age group was compared with the criterion score and p-value was determined (Table 3).

Table 3
The Results of Single Sample t-test for Comparison of Criterion and Observed Scores

Age Group	Criterion score	*M*	*SD*	d	*t*	*Df*	*p*
4-5	97	86.3	12.9	-10.7	-5.75	48	.0001
5-6	97	90.2	8.71	-6.74	-5.53	50	.0001

As shown in Table 3, there were significant differences between the mean social-emotional skills scores and the criterion score for each age group. In addition to the quantitative analysis, the children had the most

remarkable problems in some skills of CAMS social-emotional skills chart as mentioned below:

1. The child uses imagination in play.
2. The child demonstrates the ability to handle frustrations.
3. The child points out differences between self and others.
4. The child knows her/his address and phone number.

It seems that these problems had important effects on the differences between the social-emotional scores of those children and the criterion scores.

In order to answer the second research question regarding the relationship between the number of siblings and social-emotional skills development, correlation coefficient was conducted and no significant relationship has found.

Finally the findings revealed that the mean scores of social-emotional skills in 4-5 and 5-6 year-old girls was 82.9 & 92.4 and 86 & 88.3 in boys, then there was no difference between social-emotional skills scores of girls and boys, so the research hypothesis was confirmed.

Discussion

The first 5 years of life in children's social-emotional, behavioral and cognitive development is very important (Carter et al., 2004; Cooper et al., 2009). Social behavior has an effect on all aspects of children's life, their adjustment and happiness in the future. Children who display proper social behavior make social interactions between parents, teachers and peers easier (Matson, & Ollendick, 1988).

Evidence indicates that early learning is accumulative and essential for learning other skills in school. Early intervention could be helpful for children with developmental problems to prepare them for school entry. The research has shown the power of this idea by studying on the role of sensitive periods for developmental growth and brain development in children and important periods in mental development such as the first

year of life in secure attachment. Meanwhile, early intervention and preventing the later children problems would be cost effective (Heckman, 2000; Karoly, Greenwood, Everingham, Hoube, Kilburn, Rydell, & Chiesa,1998; Landry, 2005; Nelson, 2000; Shonkoff & Phillips, 2000; Shore, 1997). For this purpose developmental assessment should be included as a part of educational programs for preschool children.

In this study the authors assessed the social-emotional skills development in kindergarten aged children according to the CAMS social-emotional skills chart. It is important to mention that at the beginning we chose 4-5 years old children for assessment, but during the observation at the first month we found that most of the children in this age group had problems in the CAMS social-emotional skills chart. We then decided to extend the study to 5-6 years old children and observed them with the same chart. This age group also exhibited problems as shown in Table 1.

Individual differences are one of the interesting subjects in psychology. The results of this research mostly showed remarkable differences in each age group and between groups. There is speculation that social-cultural-educational factors are also important in these results.

Social-emotional development can be affected by cultural context. Culture may elevate or restrict the exhibition of certain aspects of socio-emotional functioning through facilitation or suppression processes. Furthermore, cultural values and norms may lead to the explanation and assessment of social behaviors (Chen, Hastings, Rubin, Chen, Cen, & Stewart, 1998). These points have been supported by the findings from some recent studies. For example, Korean and Chinese toddlers showed higher frightening, attentive and distressed reactions than Canadian, Australians and Italian toddlers in stressful conditions (Chen et al., 1998; Rubin et al., 2006). Chinese children also showed more entrust and self-regulation on conformity and delay tasks than North American children in the first years of life (Chen, Rubin, Liu, Chen, Wang, Li, & Li, 2003; Gartstein, Gonzalez, Carranza, Ahadi, Ye, Rothbart, & Yang, 2006). Cross-cultural differences in early features may be related to parenting

socialization expectations, views and training. Another study showed that whereas children's cautious and reactive behavior was related to parental refusal and disappointment in Canada, the behavior was related to hearty and accepting parental views in China (Chen et al., 1998). In comparison to Euro-Ameican parents, Korean and Chinese parents were more likely to place importance on behavioral control in rearing (Gartstein et al., 2006). Cross-cultural differences influence both social engagement and the quality of social interaction. For example, cultures that value competitiveness and the emphasis on the personal aims appear to let more hostile and coercive behavior than cultures that emphasize group concordance (Bergeron & Schneider, 2005).

To explain the findings, the authors could speculate that in Iranian culture less attention is paid to the education of some social-emotional skills such as control of emotions and to pointing out differences between self and others. Analyzing the data showed that without these skills there was no significant differences between social-emotional skills development scores of 4-5 and 5-6 age groups and criterion scores (P-value ≤ 0.32, P-value ≤ 0.172).

In this research there were no relations between the number of siblings and the social-emotional skills. Siblings are important in the social-emotional development, but 67% of the children in this research were only children. This may account for the results.

In this study there were no significant differences between social-emotional skills development of girls and boys. There was not similar study for the comparison of these results but in studies which have been conducted on some aspects of social skills of children there were no differences between social-emotional skills development of girls and boys (Shahim, 1998, 1999, 2002).

According to the results of this study, it is suggested that:

- Mothers and teachers teach the children some appropriate ways to deal with feelings of anger or frustration, such as talking about them or

drawing a picture related to those feelings and encourage the children to talk when they are upset.

- Mothers and teachers point out differences in appearance, talents, interests, abilities and show the children that each person is unique and they should not think that they or others are better because they are different.

Finally as this work was performed in only 6 kindergartens which was one of the important limitations of this study, we have some more suggestions:

- Doing more research in other parts of the country.
- Conducting research about children who grow up out of the kindergartens.

References

Bergeron, N., & Schneider, B. H. (2005). Explaining cross-national differences in peer-directed aggression: A quantitative synthesis. *Aggressive Behavior*, 31, 116-137.

Berk, L. E. (2007). *Development through the lifespan* (4th ed.). Pearson International Edition.

Beyer, T., Postert, C., Muller, J. M., & Furniss, T. (2012). Prognosis and continuity of child mental health problems from preschool to primary school: Results of a four-year longitudinal study [online]. *Child Psychiatry & Human Development*, doi: 10.1007/s10578-012-0282-5

Carter, A. S., Briggs-Gowan, M. J., & Davis, N. O. (2004). Assessment of young children's social-emotional development and psychology: Recent advances and recommendations for practice. *Journal of Child Psychology and Psychiatry, 45*, 109-134. doi: 10.1046/j.0021-9630.2003.00316.x

Chen, X., Hastings, P., Rubin, K. H., Chen, H., Cen, G., & Stewart, S. L. (1998). Childrearing attitudes and behavioral inhibition in Chinese and Canadian toddles: A cross-cultural study. *Developmental Psychology*, 34, 677-686.

Chen, X., Rubin, K. H., Liu, M., Chen, H., & Wang, L., Li, D.,... Li, B. (2003). Compliance in Chinese and Canadian toddlers. *International Journal of Behavioral Development*, 27, 428-436.

Cooper, J. L., Masi, R., & Vick, J. (2009). *Social-emotional development in early childhood: What every policymaker should know*. New York, NY: National Center for Children in Poverty.

Gartstein, M. A., Gonzalez, C., Carranza, J. A., Ahadi, S. A., Ye, R., Rothbart, M. K., & Yang, S. W. (2006). Studying cross-cultural differences in the development of infant temperament: People's Republic of China, the United States of America, and Spain. *Child Psychiatry & Human Development*, 37, 145-161.

Heckman, J. J. (2000). Policies to Foster Human Capital: *Research in economics*, *54*, 3-56.

Karoly, L. A., Greenwood, P. W., Everingham, S. S., Hoube, J., Kilburn, M. R., Rydell, C. P. & Chiesa, J. (1998).*Investing in our children: What we know and don't know about the costs and benefits of early childhood interventions.* Santa Monica, CA: RAND Corporation, MR-898-TCWF.

Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early childhood Interventions*. Santa Monica, CA: RAND Corporation.

Landry, S. H. (2005). *Effective early childhood programs: Turning knowledge into action.* Houston,TX: University of Texas Health Sciences.

Maggi, S., Irwin, L. G., Siddiqi, A., Poureslami, I., Hertzman, E., & Hertzman, C. (2005). *Knowledge network for early childhood development: International perspective on early child development.* World Health Organization; Commission on the Social Determinants of Health. Retrieved from http:// www. who.int/ social_determinants/resources/ecd.pdf

Matson, J. L., & Ollendick, T. H. (1988). *Enhancing children's social skills: assessment and training* (1th ed.). Pergamon Press.

Minnesota Department of Health. (2010). Developmental and social-emotional screening of young children (0-6 years of age) in Minnesota.. Minneapolis, MN,:. Retrieved from http:// www. health.state.mn.us/ divs/fh/mch/devscrn/

Mitchell, H., & Hoagland, V. (1992). *Social Skills Development.* Utah, United states.

Nelson, C. A. (2000). The neurobiological bases of early intervention, in J. P. Shonkoff & S. J. Meisels (Eds.), *Handbook of early childhood intervention* (2nd ed.). New York, NY: Cambridge University Press.

Oades-Sese, G. V., Esquivel, G. B., Kaliski, P. K., Maniatis, L. (2011). A longitudinal study of the social and academic competence of economically disadvantaged bilingual preschool children. *Developmental Psychology, 47,* 747-764. doi: 10.1037/a0021380

Rolnick, A., & Grunewald, R. (2003). *Early childhood development*: *Economic Development with a high public return*, Fedgazette. Retrieved from http:// minneapolisfed.org/ publications_papers/ studies/ earlychild/abc-part2.pdf

Rubin, K. H., Hemphill, S. A., Chen, X., Hastings, P., Sanson, A., LoCoco, A., & Cui, L. (2006). A cross-cultural study of behavioral inhibition in toddlers: East-west-north-south. *International Journal of Behavioral Development*, 30, 219-226.

Sadock, B. J., & Sadock, V. A. (2007). *Kaplan and Sadock's synopsis of psychiatry* (10th ed.). Philadelphia, PA: Lippincott, Williams & Wilkins.

Shahim, S. (1998). Validity and reliablity of social skills rating scale in elementary schools students. *Journal of Ahvaz Shahid Chamran University of Educational Sciences and Psychology,* 3, 17-29.

Shahim, S. (1999). Study of social skills in mild mentally retarded students. *Journal of Tehran University of Psychology and Educational Sciences,* 4, 18-37.

Shahim, S. (2002). Study of social skills in blind students. *Journal of Tehran University of Psychology and Educational Sciences,* 3, 121-139.

Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighborhood: The science of early child development.* Washington, D. C.: National Academy Press.

Shore, R. (1997). *Rethinking the brain: New insights into early development*, New York, NY: Families and Work Institute.

Wilson, K. R., Havighurst, S. S., & Harley, A. E. (2012). Tuning in to Kids: An effectiveness trial of a parenting program targeting emotion socialization of preschoolers. *Journal of Family Psychology*, *26*, 56-65.

Received: 6 / 10/ 2012
Revised : 12/ 4/ 2013
Accepted: 23 / 4/ 2013