

PARENTS, STIMULATION AND DEVELOPMENT IN AN EXTREMELY POOR RURAL ZONE

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Abstract

The purpose of this paper is to study the impact of the mother's subjective evaluation of the father's participation in the control and promotion of child development, and to evaluate the effect of actions associated with stimulation in child development. The analyzed variables were perceived support, stimulation and child development. The sample included 115 mothers with a child between one and five years old, in rural communities in the southern part of the state of Sonora. The instruments utilized were the integral development scale (EDIN), home observation for measurement of the environment (HOME) inventory, and the paternity alliance inventory (PAI). The results indicate that the mother's perception of the father's support is related to the HOME dimensions and especially to the following dimensions: a) parental interaction with children, b) the opportunity for variety, and c) the organization of the environment. In the dimensions of stimulation and development, a relationship was found only in the dimension of the parents' emotional and verbal response and the child's integral development, and specifically in development, in the area of language.

Key words: mother/child relationship, father's role, stimulation, child development, parenting styles, rural environment, Mexico.

Introduction

In his monograph, Vera (1995) describes the effect of parental interaction and the history of maternal socialization in parenting. The author points out that the topic of parenting should not take into account only the parents' relationship in explaining maternal behavior. Although the emotional investment in this relationship is one of the multiple elements that affect parenting, it is also necessary to address the mother's personality in order to understand that the child's development is affected indirectly by the parents' relationship, to the degree that stimulation depends on the evaluation of risk in growth and development. At the same time, this evaluation is based on the mother's knowledge and beliefs, which have been mediated by the couple's interaction. The second factor is the mother's socialization; techniques of correction and teaching are associated with characteristics that have been influenced by her history of socialization and the couple's relationship. Lastly, mothers can offer quality in stimulation to the degree that they are more sensitive to demands, accept the child's behavior and show attachment. Quality in stimulation promotes the use of techniques in handling contingencies that permit the structuring of more complex behaviors and attain better development.

Domínguez (1996) explains that the conception of the couple is employed as a measurement of social and individual perception, which can mold the way the mother acts not only with her husband but also within the system of relationships with family members, including her children. Klinkirt and Villegas (2001) suggest that satisfaction in the couple's relationship aids in personal growth and is reflected in a close, tolerant, creative and firm relationship with the children. In addition, when children grow in a

positive family setting, and the parents' relationship is stable and secure, the options of development are amplified. Another characteristic proposed by the authors is the transfer of elements that permit the child to confront life in a realistic and creative manner.

Hughes and Coop (2001) found that marital power, defined as the relative ability of either spouse to influence the other, has a negative relationship with the parenting alliance. Such an association was true only for the father. Other analyses reveal that the levels of conflict in the marriage can completely explain the relationship between marital power and the parenting alliance.

The evidence shows the importance of the marital relationship in understanding the mother's perception of the father's participation in parenting. Now we shall review how this supporting perception is related to parenting.

Vera y Domínguez (1996) found that the perception of positive treatment from the spouse presents significant differences in average stimulation; one such difference exists between mothers who mention positive treatment from the spouse and those who perceive negative treatment. In addition, they believe that the quality of the mother's interpersonal relationship is facilitated when associated with the couple as support, shown as the precedent of stimulation (Ryan, 1985; Adamakos, 1985; quoted in Vera y Domínguez, 1996). The authors conclude that stimulation improves to the degree that the perception of treatment is positive and harmonious.

Another variable related to stimulation, and of interest for this study, is the number of children in the family. Montiel, *et al.* (2002) in his study of the stress of raising children with regard to the number of children and the mother's age, found that mothers with fewer children perceive less support from their spouse, fundamentally for the firstborn.

Velasco (1999) suggests the possibility that the perceived support from the spouse is not separate from the relationship itself; he presents evidence that justifies the association between perceived support and marital satisfaction (Fincham, 1998; Abidin and Brunner, 1995).

Some studies related to nursing children show that the mothers who receive support from the father during this period nurse the child longer than mothers who do not receive help from their partner (Entwislo and Doering, 1981, quoted by Halle, 1999).

Dumka, *et al.* (1999) present the results of their study in communities of low-income Mexican immigrants and Mexican Americans, in terms of the effects of acculturation, parenting stress and parenting practices; the data indicate that the parenting alliance attenuates the negative effects of the mother's stress in parenting practices, and that mothers who perceive their spouse's support show greater participation, supervision and acceptance in raising their children.

The literature describes the impact on parenting of maternal characteristics, the marital relationship and the father's participation in parenting tasks, the socioeconomic and educational level, the parents' age and the number of children. According to Velasco (1999), the perception of the spouse's support affects the stimulation and development of children over age six. Based on these findings, the general objective of this study is to evaluate the impact of the mother's subjective evaluation of the father's participation in controlling and promoting development, as well as to evaluate the effect of actions related to stimulation in child development.

Method

The sample for this study consisted of mothers with at least one child under age five, in the communities of the municipalities of San Javier, Soyopa, La Colorada, Huatabampo, Navojoa, Álamos, Rosario, Quiriego and Yécora, in the state of Sonora,

México. According to the indicators of Camberos, Genesta y Huesca (1994), these communities are considered marginal and extremely poor.

The population consisted of 863 mothers with the main characteristic of having at least one child between ages one and five, resulting in a sample of 115. The Sierra Bravo (1985) procedure was used to obtain the sample, with a 95% confidence level, 8% margin of error, $P = 0.5$ and $q = 0.5$. The formula was the following: $n = [N(p)(q)] / [N - 1(B)^2 + (p)(q)]$

The type of sampling was random and probabilistic. The selection was made by means of lists provided by the General Director of Initial Education of the Ministry of Education and Culture of the state of Sonora. A visit was made to the authorities or the health center in each community to locate the mothers. They were interviewed at home, provided the child was present.

Instruments of Evaluation

Integral Development Scale (EDIN)

This scale is one of the most complete scales in existence to evaluate various areas of development among children from birth to age six. It has adequate psychometric properties and data on the validity of construct in terms of developmental trends and comparison of socioeconomic levels. No data are available, however, with regard to concurrent and predictive validity. The scale was designed to provide better descriptions of child development than those offered by other standardized scales, prepared in other countries. The list of EDIN questions permits a more detailed evaluation for examination; three attempts are allowed for each question and the passed or failed questions are recorded (Atkin, 1989).

Child Stimulation at Home (HOME)

The HOME inventory is an instrument that serves to evaluate the level of stimulation provided to the child; the analytic unit is the quality of interactions that occur between the mother or caregiver and the child. The instrument uses thirteen principles that prescribe the regularity, consistency and orderliness of the contingencies of reinforcement by a reduced number of adults, the frequency and type of the child's interactions with caregivers, and the order and quality of the child's environment (Vera, *et al.*, 1994). Some studies have made adjustments for using the instrument in rural areas (Vera, *et al.*, 1991).

This inventory of observation, designed to measure stimulation at home, contains 45 questions grouped in six sub-scales: a) the parents' emotional and verbal responsiveness; b) acceptance of the child's conduct; c) organization of the physical environment; d) supply of materials for play; e) parental involvement with the child; and f) opportunities for variety in stimulation.

The data obtained in the study were used to calculate Cronbach's alpha for the HOME inventory, in a version for infants (birth to three years of age), with 45 questions. The total alpha for this version is 0.773 and is composed of six factors: emotional and verbal response ($\alpha=.709$); acceptance of conduct ($\alpha=.621$); organization of the environment ($\alpha=.421$); provision and functionality of play materials ($\alpha=.648$); parental involvement ($\alpha=.661$); and opportunity for variety ($\alpha=.277$).

Parenting Alliance Inventory, PAI

PAI evaluates the degree of support and commitment that the mother perceives in her spouse. It describes the part of the parents' relationship that concerns the practice of

parenting. The inventory consists of twenty questions answered on a five-point Likert scale (Abidin and Brunner, 1995).

A study carried out by Abidin and Brunner (1995) analyzed the factorial structure and reliability of the inventory. It reported that no significant differences exist between the mothers' and fathers' responses; the explained variance for both parents is 66.3%. The construct presents total internal consistency of 0.970. The authors reported that the PAI discriminates significantly in married women, separated women, single mothers and divorced women. It also mentions that this inventory is significantly related to previously established measures of marital satisfaction, parental stress and parenting styles.

The data obtained were used to calculate Cronbach's alpha and carry out a factorial analysis of the principal components with Varimax rotation for the PAI. A selection was made of items having a factorial weight equal to or greater than 0.30. The alpha index for the entire inventory was 0.967.

The factorial analysis shows two components: the first consists of fifteen questions and refers to the perception of the father's exclusive participation in caring for the child. The explained variance for this component is 42.68% and alpha is 0.962. The second component evaluates the parents' joint participation in parenting and a positive evaluation of the mother's pattern of parenting behavior. This factor consists of five questions that explain 26.03% of the perception of the spouse's support. The alpha index for this component was 0.862.

Results

The analysis corresponds to data from 115 mothers having a child between ages one and five. 50.4% (n = 58) of the mothers are below the average age, 40.9% (n = 47) are above that age and the remainder 8.7% (n = 10) have an average age of 28.10. The minimum age recorded was 14, and the maximum, 45. With regard to the mothers' occupations, 93.9% (n = 108) are homemakers and 6.1% (n = 6) are employees. 33% (n = 38) of the mothers have two children; 25.2% (n = 29) have three; 22.6% (n = 26) have only one child; and 19.1% (n = 22) have four or more children.

Of the children, 60% (n = 69) are above the average age, 37.4% (n = 43) below the average age, and 2.6% (n = 6) have the average age of 2.38. The minimum age recorded was one year old, and the maximum was five years and five months.

In terms of housing, 69.6% (n = 80) live in a home of their own and 61.7% (n = 71) of the houses are located in dry farming communities. 69.6% (n = 80) have piped water and only 23.5% (n = 27) are connected to a sewer; 75.7% (n = 87) have electricity and 58.3% (n = 67) have municipal street lights.

Descriptive Analyses

Children's Integral Development Scale (EDIN)

To analyze the development variable, it was necessary to transform the absolute values into z-scores for each area and age, in order to compare results. To locate the level of development, the z-scores are grouped into two categories:

Children at risk in development, with scores exceeding -1.70 standard deviations, and *children without risk in development*, for all children obtaining scores lower than -1.70 . According to these criteria, the development of most of the children in all the areas evaluated is without risk.

The children from ages 1 to 1.5 obtained 58.33% of the passed questions; those from 1.5 to 2 passed only 34.4%; and the children from 2 to 2.5, passed 55.55% of the questions; the children from 2.5 to 3 years of age passed 59.37%; in the group of

children from 3 to 4, the maximum number passed was 48.95%; and the highest percentage of passed questions (65.47%) corresponded to the age group from 4 to 5.

Perceived Support from Spouse

The questions were written in a positive form: the higher the score, the greater the perception of support. The responses to the questions are totaled, with a minimum of 40 points and a maximum of 100. Working with tests that contrast groups requires converting these amounts into categorical data to be handled in a non-parametrical manner. For this reason, the summatory function was divided by the number of questions (20), resulting in a continuum from 2 to 5 points. The decision was made to work with two groups of perceived support: group 1 “moderate perception of support” (3.01 to 4 points) and group 2 “constant perception of support” (from 4.01 to 5 points).

With regard to the distribution of these data, most of the mothers evaluate positively their spouse’s support in parenting. 66% (n = 76) of them perceive constant support from their spouse, while 33.9% (n = 39) consider that their spouse’s support is moderate.

Stimulation of the Child at Home

In order to compare the effect of stimulation on the development scores, it was necessary to group the data according to the proposal of Caldwell and Bradley (1968). Three groups were formed to compare stimulation: inadequate (zero to half of the possible points), moderate (one-half to two points less than the maximum) and adequate (the two final points of the maximum). Table 1 shows the scores by dimensions.

TABLE 1
Groups of Stimulation by HOME Dimension, According to Total Scores

HOME Dimensions	Stimulation		
	<i>Inadequate</i>	<i>Moderate</i>	<i>Adequate</i>
Verbal and emotional response	0-6	7-9	10-11
Acceptance of the child's conduct	0-4	5-6	7-8
Organization of environment	0-3	4-5	6
Supply and functionality of play materials	0-4	5-7	8-9
Parent/child relationship	0-2	3-4	5-6
Opportunity of variety	0-1	2-3	4-5
HOME total	0-25	26-36	37-45

Of the six dimensions evaluated, only three are located in the groups of moderate stimulation; the remaining three are in the inadequate category. It is necessary to mention that the analysis of these dimensions did not consider the data on the acceptance of the child’s conduct for any test of group difference, since 93.9% of the

mothers in this dimension are concentrated in a single group: that of inadequate stimulation.

The data suggest the low applicability of the dimension of acceptance of the child's conduct in rural communities. It is possible that maternal behavior is associated with a pattern of parenting for this population; in other words, an accepted and common practice in these rural communities is for the mother to shout, scold and spank her children as a form of parenting. The study by Vera, *et al.* (1997), concludes that one of the principles that guides the mother's behavior in rural areas is control of the child's adequate conduct. The study also indicates that mothers who perceive parenting as an exercise of control relate in a positive manner to physical punishment. Table 2 shows the frequency and percentage of groups in stimulation for the child's and total dimensions.

TABLE 2
Frequency and Percentage only for the Stimulation Categories in each Dimension of HOME and Total Stimulation

HOME Dimension	Category in Stimulation	n	%
Emotional and Verbal Response	Inadequate	22	19.13
	Moderate	64	55.65
	Adequate	29	25.21
Acceptance of Conduct	Inadequate	108	93.9
Organization of Environment	Inadequate	36	31.30
	Moderate	79	68.69
Supply / Functionality of Material	Inadequate	70	60.86
	Moderate	45	39.13
Parent/Child Relationship	Inadequate	51	44.34
	Moderate	33	28.69
	Adequate	31	27
Opportunity for Variety	Moderate	87	75.65
	Adequate	28	24.34
Total Stimulation	Inadequate	81	70.43
	Moderate	34	29.56

Characterization of Maternal Conducts of Stimulation

The standardized average values for development consist of the data from six age groups, differentiated by average value and standard deviation. Compared below are the maternal conducts of stimulation and the standardized average values in development for the groups with most important differences. In the dimension of verbal and emotional response, the average difference in the z-scores in development, with respect to the group of adequate ($\bar{x} = .324$) and inadequate ($\bar{x} = -.071$) stimulation was .395.

The maternal conduct that describes the three levels of stimulation is the following: the mothers who stimulate in an inadequate form are characterized by having difficulty

in starting a conversation with visitors, in responding verbally to the child's vocalizations, in conversing with ease, in speaking with the child in a spontaneous manner, in praising the child, and in hugging and kissing the child. The mothers infrequently tell their children the names of objects and permit them to play "dirty" games (with dirt, dirty water, feces). The mothers who stimulate in a moderate form have difficulty in praising their child in a spontaneous manner, in naming objects and in allowing the child to play "dirty" games. In the group of moderate and adequate stimulation, the mothers more frequently speak to their child spontaneously and respond verbally to the child's vocalizations. They talk easily to the child in a clear and audible form, and initiate verbal exchanges with visitors, in addition to speaking with ease.

In terms of the supply and functionality of materials, the average difference in the z-scores in development, between the group of inadequate stimulation ($\bar{x} = -.086$) and the mothers that stimulate in a moderate form ($\bar{x} = .134$) was $-.220$. The most frequent maternal conduct identified within the group of inadequate stimulation is the supply of toys appropriate for the child's age and materials that aid in visual/motor coordination. Less frequent was the supplying of toys that aid in the coordination of fine and gross motor function and physical and cognitive development. The mothers who stimulate moderately offer toys for pushing, walkers and small cars, in addition to toys appropriate for the age and toys that stimulate visual/motor coordination.

In the dimension of opportunity for variety, the average difference in the z-scores in development between the group of moderate ($\bar{x} = -.064$) and adequate ($\bar{x} = .199$) stimulation was -0.263 . The mothers who stimulate in a moderate and adequate form answered that they frequently supply daily care, eat at least one meal each day with their children and visit other family members at least once a month. Except for the group of moderate stimulation, the probability of reading to children is low. In the three groups (inadequate, moderate and adequate), the children do not have three or more books of their own.

Correlation Analysis

With respect to the relation between stimulation and each dimension with the z-scores in development, the only dimension associated in a positive and weak direction ($.259$; $p = .01$) was the dimension of verbal and emotional response with the language area. This finding means that diversity in vocabulary, verb conjugation, sentence structure and in general, integral development, can be linked with the ease and clarity of the parents' speech, in addition to their showing of positive feelings in response to the child's verbalization.

Spearman correlation analyses were carried out for the mother's age and the number of children, with the categorized values of support perceived from the spouse, child stimulation and its dimensions. Associated in a negative direction was the variable of the mother's age and the dimension of organization of the environment. Since this final dimension is related to the variable of the number of children, it can be stated that the younger the mother or the fewer the children, the more frequent the maternal behaviors that promote variety in interacting in other scenarios, and the procurement of protected spaces to play and keep the child's toys.

Spearman correlation analyses were also carried out for the values of perceived support with stimulation and each dimension. Only a weak correlation in a positive direction was found for the variable of perceived support from the spouse with the dimensions of organization of the environment ($.229$; $p \leq .05$) and parental involvement

with the children (.209; $p \leq .05$). It seems that mothers who provide safe spaces for their children consciously promote their development by giving them toys, playing and reading stories; in addition to this care, they have a constant perception of the spouse's support. It should be mentioned that the dimension of organization of the environment was related to the variable of the mother's age ($-.252$; $p \leq .05$) and the number of children ($-.202$; $p \leq .05$), as well as with perceived support and development.

Comparison of Groups

The variables regarding the mother's age and number of children are of interest for this study. The age groups were: group 1 (ages 14 to 25) and group 2 (ages 26 to 45). The groups per number of children were: group 1 (only child); 2 (two children); 3 (three children) and group 4 (four children or more).

For the summatory function in stimulation, parametric statistical graphs were used since they presented a normal distribution. Student's t-analysis for the mother's age as a factor and the total of *stimulation at home* as an independent variable did not show a difference between the group of young mothers and the group of mothers over age 26. A simple analysis of variance was also carried out for the number of children and total stimulation. The results in this test showed that no significant differences exist between the number of children and total stimulation. In other words, the frequency of stimulation for children from ages one to five is similar among the mothers who have one, three or four children.

The variable of the mother's age and the number of children as a factor and the categorized values of perceived support and the dimensions of stimulation as dependent variables were analyzed with non-parametric statistical graphs. In terms of perceived support, no difference exists between the age groups and the number of children. In other words, the young mothers as well as the mother over age 26, and mothers with one, two or more children have the same perception of their spouse's support.

With regard to the comparison of the dimensions of stimulation, only organization of the environment was significant for the mothers' age groups and the number of children. According to the results, the mothers under age 25 with two children promote in a different manner their child's contact with scenarios away from home, besides obtaining safe and exclusive spaces for the child ($U = 1242.50$; $p \leq .010$).

Of the six evaluated dimensions of HOME, organization of the environment ($\mu = 1242.50$; $p \leq .014$), parental involvement with their children ($\mu = 1130$; $p \leq .026$) and the opportunity for variety ($\mu = 1223$; $p \leq .040$) presented significant differences. The group that marked the difference in the three dimensions of stimulating the child was the group of mothers who perceive the constant support of their spouse, with respect to the group that perceives moderate support. In other words, the mothers who provide safe spaces for their child, who allow the child to come into contact with other scenarios away from home and stimulate in a conscious manner their children's development by offering them toys, playing and reading stories, in addition to providing other care, are those who perceive the constant support of their spouse.

Student's t-analysis for the dimension of the supply and functionality of materials ($t = 8.39$; $p = .005$) was significant for the language area. The difference was marked by the group of moderate stimulation with respect to the mothers who stimulate inadequately. Total stimulation was also significant for the area of language ($t = 7.83$; $p = .006$). The group of mothers who stimulate in a moderate manner was the group that marked the difference with respect to the group that stimulates in an inadequate manner. We can state that variety in the vocabulary, the formation of sentences and the handling of verb tenses by children are affected when the mothers supply toys that

facilitate learning and motor development, and in general stimulate their child's development in moderate form.

Discussion and Conclusion

According to the results, more than one-half of the mothers evaluated are under age 25; the maximum age is 45. The mothers' behaviors in these age groups are different in terms of expectations, needs, socialization processes, interaction with the family and spouse and parenting styles. Other variables related to these behaviors are the number of children and the participation in employment activities. One-third of the mothers in this study have two children, followed by those who have three children. In these communities, it is infrequent to find families who want only one child; the main provider of the household is the male, and fewer than 7% of the mothers are employees.

Since 60% of the children are older than two years four months, they have the size and maturity to move without help. Mobilization and exploration intensify and the parents respond to the need to protect their children and safeguard their integrity. The smaller the child, the more the parents attend to his demands for food and protection, and the less they promote learning activities. In this study, the results show that the older the child, the better his development scores, without taking into consideration his receptive ability and capacity for learning. Other support for these data is provided by the study by Vera, *et al.* (1997), which shows that children with lower scores in development are raised with strategies of a disciplinary type; i.e., the parents are most interested in supervising the child's conduct.

The results of this study show that the subjective evaluation of the parent's participation is positive, especially in the dimension of organization of the environment, for which the father's instrumental conduct is necessary.

Discussed below are the results of correlation, followed by the analyses of comparison: the relations found between a) the variables of stimulation at home and perceived support; b) stimulation and its dimensions with development and c) perceived support and stimulation. Although the correlations are weak statistically, there is evidence that supports these findings (Domínguez, 1996; Velasco, 1999).

a) The relation between the variables of the mother's age, number of children and stimulation of the child, and the score of perceived support is positive and significant.

Of this group of variables, the dimension of organization of the environment is the only dimension that has a relation with the mother's age and number of children. The correlation is in a negative direction; in other words, the mothers who are younger and have fewer children more frequently promote interaction with scenarios outside of the home. It also indicates that the age and number of children are related to the exclusive spaces for the child. It can be understood that the organization of a family is different when there is only one child rather than three or more. The children who are older and have more independent movement play a more active role in the housework; they accompany their parents to shop, take care of their younger brothers and sisters, and do cleaning chores and other jobs.

The structuring of time to cover the family's demands also varies. A family with one or two children can offer more exclusive time in comparison with a mother who attends to the needs of a newborn, a child two or three years old, and a third child age five or of school age. The number of children acquires a special role since the mothers evaluated live in poverty, and some live in distant communities. Coming into contact with scenarios outside of the home is difficult when a family of five or more members lives with minimum resources. It is more viable for the family to take along the child

who can help, and leave the youngest at home. Other variables analyzed were the mother's age and number of children; the direction of both correlations was negative. It is seen that neither of the correlations meets the criteria of .350 established for the hypotheses of correlation. The results indicate that the younger the child, the more inadequately the mother organizes the environment. The mothers between ages 14 and 25 more often attempt for their children to interact with other environments outside of the home and/or designate an exclusive space for children.

b) The relation between the variable of perceived support and stimulation for the child and its dimensions is positive and significant.

Correlation was found between the spouse's perceived support and three dimensions of child stimulation at home: parental involvement with the child, opportunity for variety and organization of the setting. Since three of the six questions refer to being in contact with other scenarios outside of the house, they require transportation for the mother and child, and often the spouse's participation. Other items of the father/child relation and opportunity for variety are linked to the supply of toys or articles that facilitate learning, and with the father's care. In contrast with the findings of Velasco (1999), the variable of the spouse's perceived support had no correlation with total stimulation, although it correlated with some of its dimensions.

c) The relation between stimulation scores and z-scores in development is positive and significant.

The correlation values were expected to range from moderate to high, with the existence of a large number of correlated variables. No value of correlation, however, reached the criteria of .350. Of 49 possible relations among the six dimensions of stimulation and total stimulation with development and its areas, a positive relation exists only between the mother's emotional and verbal response and the child's development. Most studies show the relation between stimulation and tests of intelligence and development, but they do not specify the values of correlation between the dimensions that make up the tests (Velasco, 1999; Vera *et al.*, 1998).

The dimension of emotional and verbal response was related to a sense of intent in responding to the child's verbalizations, speaking to the child, having the initiative to exchange ideas or opinions with other people, in addition to characteristics related to the handling of language for self-expression and holding clear, understandable conversations. This dimension also measures the parents' affective behaviors that allow children to feel loved, and which strengthen the affective link between the child and his caregiver. Therefore, we can state that language and in general, child development are linked to parents' abilities to speak and express themselves easily, and with the parents' processes of socialization when the child is present. It is through the stimulation of emotional and verbal response that the child conceives the form and characteristics of objects, begins processes of differentiation, structuring of thought and language, and strengthens his ties with his caregiver(s) by feeling loved.

d) A difference exists between the mother's age group and number of children, with respect to perceived support and stimulation of the child.

Contrary to the results of other studies, which show that the mother's age and number of children affect the level of stimulation and the spouse's perception (Montiel *et al.*, 2002), the groups of mothers in this study did not show differences between stimulation and perceived support. On comparing the mother's age and number of children with the dimensions of stimulation, the categorized values for these variables were

significant for the dimension of organization of the environment. In other words, the mothers under age 25 with two children organize the child's environment differently than the older mothers with more than three children. The frequency children come into contact with scenarios outside of the home varies according to the number of children and the mother's age. If the number of children in the age group of mothers between 14 and 25 is low, the possibility of leaving the house is mediated by these two characteristics.

e) A difference exists between the groups of perceived support with respect to the scores of child stimulation.

The results of this study show that the perception of support from the spouse did not have a significant effect on the level of stimulation provided by the mother; it did, however, have an effect on the dimensions of organization of the environment, parental involvement with children and the dimension of opportunity for variety. The mothers who provide safe spaces for the child, attempt to put the child into contact with other scenarios and consciously stimulate (in a deliberate or planned manner) the child's development, and offer other care as well, are mothers who can identify the constant perception of support from the spouse.

Vera y Domínguez (1996) and Velasco (1999) showed that the perception of support has positive effects on total stimulation, although data by dimension were not presented. It is necessary to mention that many questions of the dimensions are related to the father's participation. This condition allows us to understand why paternal participation is relevant in stimulating children under age five.

f) A difference exists between the groups of stimulation and their dimensions with respect to development scores.

It is necessary to mention that in the correlation analyses as well as the group comparison, language has most reflected the effect of stimulation.

The conclusion of the above findings is that conducts related to the mobilization and interaction with scenarios outside of the home are affected by the mother's age and number of children. It is also observed that the father's instrumental conducts and approval of the mother's parenting have an important weight in the way the spouse's support is evaluated.

At least in these communities, advancement in development is not a product of a deliberate or planned form of stimulation, but responds more to the demands of nourishment, care and protection of physical integrity. In other words, the mothers conceptualize development as a biological process that does not require intervention, and therefore do not make efforts to reinforce the progress of their children and provide them with environments that favor their development. To the degree that the child grows and acquires more independence, his developmental scores are favored by coming into contact with older persons.

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