

This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author(s) and source are credited.



ISSN: 0974-8369

Biology and Medicine

International, Open Access

Available online at: www.biolmedonline.com

This article was originally published in this journal and the attached copy is provided for the author's benefit and for the benefit of the author's institution, for commercial/research/educational use including without limitation use in instruction at your institution, sending it to specific colleagues that you know, and providing a copy to your institution's administrator.

All other uses, reproduction and distribution, including without limitation commercial reprints, selling or licensing copies or access, or posting on open internet sites, your personal or institution's website or repository, are requested to cite properly.

The Influence of Mother-Child Interaction on a Child with Health Limitations

Svetlana Evgenyevna Inevatkina*

Mordovian State Pedagogical Institute, 11 A., Studencheskaya Str., Saransk, Mordovia 430007, Russia

Abstract

This article explores the role of child-parent relationship in children's development in general, and the development of children with health limitations, in particular. The article describes the concept of "parent relationship" and studies about child-parent relationship and its characteristic influence on a child's development. It also analyzes how birth circumstances and the upbringing of a child with health limitations affects the development of child-parent interaction. We explore the factors which complicate this interaction. We refer to the points of view of the representatives of psychoanalysis, theory of object representations, transactional psychology, epigenetic paradigm and ethologic approach; we also analyze the opinions of representatives of L.S. Vygotskiy's cultural and historical theory of psychological development, A.N. Leontyev's activity theory and M.I. Lisina's communication genesis framework. The study procedure and the methods used are Parental Attitude Research Instrument (PARI) questionnaire; a method of assessing neurological and psychological development of children of younger age (G.V. Pantyukhina & K.L. Pechora); content analysis of videos of interactions between mother and child; interview of the mothers and specialists who work with the "mother-child with health limitations" pairs. We discuss the obtained results of the study, which describe the role of child-parent relationship in the development of children with health limitations.

Keywords

Child-parent relationship; Maternity behavior; Child's psychological development; Internal maternal position; Child of infant age; Child of younger age

Introduction

Currently almost all national and international studies of children development prove that child's personality, all types of their activity and relationships with the surrounding society are based on the interaction with the mother or with another significant adult, and the disruptions of child-parent relationship lead to emotional and behavioral disorders and to impairments of child's intellectual, motor, psychological and psychosomatic development [1-9].

One of the reasons of the changes in child-parent relationship might be the child's abnormal development. By summarizing the studies that describe the variety of child-parent relationships in the families that foster children with sensory impairments and intellectual deficits, we can define four main types of parenting strategies: 1) hyperprotective strategy – a desire to cover the child from the problems and difficulties, nurturing him/her as helpless and constantly needing protection and care; 2) authoritarian and rejecting strategy – an order to fully complete all of the tasks, exercises and demands; 3) hypoprotection – an expansion of emotional distance, coolness in the interactions and emotional rejection of the child; 4) cooperation – constructive and flexible type of mutually responsible child-parent relationship in the cooperative activity, nurturing the child as healthy but having a number of special characteristics, which have to be taken into account during the upbringing process [10,11]. According to the data of national studies, the abnormalities of child's development in most cases have a negative impact on parents' personalities and their emotional state, which are characterized by anxiety, expressed depressive reactions, emotional instability with rigid effect, increased sensitivity towards social criteria and external evaluations and increased excitability [12].

These data are discussed in social and historic context, because parental attitude towards the child, child's image and ideas of maternity are inextricably related to social and cultural traditions and have

different content during different historical periods. Parents' attitude towards the children with health limitations develops based on the conventional, cultural and historic positions of the society, which manifest through religious and philosophic traditions, common conscience values, politics and state laws in the education area [13]. Furthermore, the adults' interaction with a child with health limitations might be partly complicated by society's attitude towards a family with a child who has visible developmental abnormalities, which can often be controversial and full of prejudices [13-16].

On the contrary, the variety of parents' attitude towards the child may be based on the mother's individual psychological characteristics, which are related to her personal history, such as her own specific childhood experience, spousal relationships, emotional and bodily experiences during the pregnancy, interactions with the child in the post-natal period, etc. [17,18]. Other significant factor, which defines the characteristics of mother's behavior during interaction with the child with developmental abnormalities, is the severity of child's deficits [19-22].

The necessity to continue studying the interaction in "mother-child with health limitations" pair, and the factors which define are based on the results, obtained during the use of guidance papers in the field of early support for the families with abnormal child. The studies, conducted by a national special-needs expert in the last 20 years and aimed at the efficiency of correctional and pedagogic work with children who have various developmental abnormalities show the significance of parents' role, particularly, mothers' role in providing well-timed

*Corresponding author: Inevatkina SE, Mordovian State Pedagogical Institute, 11 A., Studencheskaya Str., Saransk, Mordovia 430007, Russia

Received: Nov 25, 2015; Accepted: Dec 20, 2015; Published: Jan 23, 2016

Citation: Inevatkina SE (2015) The Influence of Mother-Child Interaction on a Child with Health Limitations. Biol Med (Aligarh) 7(5): BM-151-15, 5 pages.

Copyright: © 2015 Inevatkina et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

help to the child [22,23]. Further development of this field implies the necessity of studying psychologic structures, which regulate mothers' behavior during the interaction with disabled child, and developing the programs of psychologic and pedagogic support for the families of "special" children, based on the obtained results [24].

Thus, the situation of birth and upbringing of a child with health limitations is characterized by a number of special features, which can manifest in the characteristics of child-parent interaction. As a main hypothesis, we can propose a suggestion that a mother's behavior [25-27] or her mental health [28] defines the quality of rehabilitation of a child with health limitations.

Methods

Participants in the study were 75 "mother-child of younger age" pairs, of which experimental group included 27 "mother-child with health limitations" pairs and control group consisted of 34 "mother-normally developing child" pairs. Children in experimental group had organic brain lesions with intellectual decline of various levels of severity. Participants in the experimental group (mothers and children with health limitations) attended the Center of Prolonged Day (CPD) in MordSPI in order to get psychological and pedagogic assistance. Children in the control group attended educational classes in CPD in MordSPI; their mothers were not involved in the process of psychological and pedagogic assistance. Control and experimental groups are equalized by age and mothers' social and demographic characteristics, such as education level, occupation type at the moment of the study and matrimonial status.

In order to study the role of child-parent relationship in the development of children with health limitations, we used the following methods: Parental Attitude Research Instrument (PARI) questionnaire, assessment of neurological and psychological development of children of younger age [29]; content analysis of videos of interactions between mother and child; interview of the mothers and interview of specialists who work with the "mother-child with health limitations" pairs.

Parental Attitude Research Instrument (PARI) questionnaire is aimed at studying the attitudes towards children upbringing; it was developed by E. Schaefer and R. Bell. The questionnaire consists of 23 scales, which cover different aspects of parents' attitude towards the child and family life. 8 of these scales describe the attitude towards the family role and 15 address child-parent relationships; each scale includes 5 statements. Subjects from both experimental and control group participated in this part of the study.

Assessment of neurological and psychological development of children of younger age [29]

In the children of the second and third years of life the level of psychological and motor development is assessed by the following characteristics: understanding of speech, active speech, sensory development, games and actions with objects, general movements, self-service skills.

Content analysis of videos of interactions between mother and child

During the study of interactions in the "mother-child with health limitations" pair we assessed the quality of interaction in the situations of emotional and personal communication and of situational and business interaction. For each pair we shot two video clips, 7-10 min each. First clip was shot upon instructing the mother to "Talk and play

with the child, like you usually do it". The second clip was shot upon the instruction to "Take any toy and play with the child, like you usually do it".

Interview of the mothers

The interview was performed in order to collect the follow-up data about child's psychological development and mother's self-realization in a profession or other areas of life. The interview was conducted over the phone; it was based on a plan, which included two types of questions:

- a) questions that address the development of a child with health limitations: child's somatic state (hearing, sight, cardiovascular system, digestive system, etc.); the development of self-service skills (ability to use a spoon, a bedpan, to drink from a glass); development of motor skills (age, at which the child began walking on his own); speech development; usage of correctional means for child's development (attending kindergarten or educational centres, involving specialists for education at home, self-organized classes); child's achievements;
- b) questions that address the opportunities of the self-realization of the woman who raises the child with health limitations: professional status (employed, unemployed or on maternity leave) and her attitude towards it; opportunities for self-development (present occupations, which bring satisfaction).

Interview of specialists, who work with the "mother-child with health limitations" pairs

It was performed during a face-to-face meeting in order to collect the information about mother's involvement in the therapeutic, rehabilitation and developmental procedures and her attitude towards them. The interview plan included 10 main points: volume of the interaction with a child; classes in the centres; mother's attitude towards the developmental classes; kindergarten attendance; attitude towards the attention from the surrounding people; the way of talking about a child (while talking about a child, the mother highlights the problems or the achievements); use of help from the close ones and friends during the child's upbringing; the family's attitude towards the child with health limitations; the level of satisfaction with her own self-realization.

Results and Discussion

Analysis of the assessment of neurological and psychological development of children of younger age [29] allowed to divide the experimental group subjects into two sub-groups (based on the level of children's psychological development): the "delay sub-group" (17 pairs, where children had a delay in psychological development by 2-3 epigenetic critical periods) and the "severe delay sub-group" (24 pairs, where children's psychological development delay was 4-5 or more epigenetic critical periods).

Analysis of the data, obtained with the PARI questionnaire, revealed that the upbringing strategy of the subjects in the experimental group (EG) is characterized as being democratic, responsible (caring), interested in the child (in comparison with the control group (CG), the EG has higher scores on the following scales: "Giving the child an opportunity to express his opinion", "Fear of harming the child", "Parents and child equality", "Approval of child's activities", "Fostering the child as a part of oneself", "Friendly relationship between the parents and the child", "Mother's need of help"). The position, common for the subjects from the CG, is more authoritative; it lacks the involvement and the emotional contact with the child (in the CG the scores are higher than

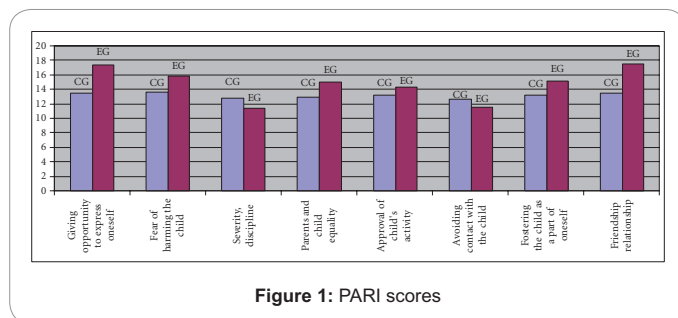


Figure 1: PARI scores

in the EG on the scales “Severity, discipline” and “Avoidance of the contact with the child”) (see Figure 1).

Thus, the results – obtained with the PARI questionnaire – show that the upbringing strategies of mothers of children with health limitations differ not only in the aspect of controlling the child, but in other parameters as well. Therefore, we can hypothesize that attributing such fostering strategies to oneself, along with changing the position in child-parent relationship, is a result of the work of specialists who provide psychological and pedagogic assistance to the “mother-child with health limitations” pair. We can suggest that a more democratic and responsible fostering strategy of the EG subjects might suffice their active involvement in child’s rehabilitation.

Results of the interview with the mothers and with specialists, who work with families, who participated in our study, allowed dividing the subject sample into two sub-groups: the first sub-group was “actively participating in the child’s rehabilitation” (67% of the subjects in the EG); the second sub-group was “refusing to participate in the child’s rehabilitation” (33% of the subjects in the EG).

The first sub-group (“active participation in child’s rehabilitation”) included the situations when the subjects gladly spend a lot of time with their child and sincerely regret if this becomes impossible. Mothers proudly talk about their children, enjoy their routine successes and achievements; the problems are presented as the tasks which need to be solved. The women in this sub-group are oriented on the developmental potential of the procedures, performed to the child, and therefore seriously approach the issue of finding a developmental centre and specialists for their child; they usually attend several centres, insist on some extra classes, include private specialists and use the recommendations from the centre for educating the child at home. Child’s attendance to the kindergarten is viewed as an opportunity for his development, and it becomes a reason for the thorough choice of pre-school education. Kindergarten should have the best facilities for their child’s development and should become a place, where the child would enjoy psychological comfort. Because of this, participants in this group are willing to take their child to the opposite side of the city, even if it is inconvenient for them. Moreover, subjects in this sub-group often play the role of consultants to other families.

The second sub-group (“refusal to participate in child’s rehabilitation”) included the subjects who do not strive to spend a lot of time with their child. The fostering function is passed over to a grandmother, a nanny, specialists in the full-time kindergarten, etc. This sub-group also includes the women who have to raise the child with health limitations by themselves, but who are troubled by this, who seek any opportunity to take this role away from themselves and

who are also in constant search for a person to take over this function. These subjects usually have a very formal approach towards attending the centres of early help – they come only upon the invitation from the specialists, frequently refuse to attend under different pretexts and they ignore the “homework”. They take the child to the kindergarten because of their own convenience, in order to get free time and to pass the responsibility of raising and developing the child to the specialists. While talking about the child, they focus on the problems in his/her development and behavior, and the child’s achievements are being depreciated or belittled.

Thus, comparison of the data, characterizing mother’s behavior during the child’s rehabilitation, with the results of child’s development assessment showed that in 100% cases of mother’s “refusal” to participate in the child’s rehabilitation (“passing over” the fostering functions to grandmothers, nannies or specialists in the full-time kindergarten; formal attitude towards attending the early help centres, refusal to attend them, ignoring the specialists’ recommendations, etc.) children’s development is significantly delayed, compared to the age normal range. “Refusal” to participate in child’s rehabilitation was revealed in 33% of all cases. Furthermore, mother’s active participation in child’s rehabilitation is not enough for his successful development: subjects who are actively participating in the rehabilitation events in 55% of cases have a child with developmental delay, and in 45% of cases this delay is severe.

The next stage included the analysis of interaction between the mother and the child with health limitations. All subjects were separated into two sub-groups: “positive contact” and “negative contact”.

The first sub-group (“positive contact”) included the subjects who stimulate and maintain the dialogue with the child. The game is organized as a sequence of turn-by-turn actions (mother-child-mother-child), such as feeding, combing the hair, building; both participants profit from each game situation and the proposed actions are highly variant. The mother reacts with words, touches, strokes and light pats to all of the child’s initiatives and signals; she comments his state, mood and actions for him. Child’s vocalizations, gestures and game actions are “mirrored” by the mother; they are also accepted as the answers during the dialogue with him. Everything that catches the child’s eye (toys, objects) gets the attention – the mother comments on everything, and she also asks the child to name the objects. All comments and statements, used by the mother during the communication, are addressed to the child. During the interaction the child does not get any negative assessment; the mother constantly creates a situation of success for him.

The second sub-group (“negative contact”) included the subjects who often ignore the child’s signals and initiatives and who do not support the dialogue with the child, including the game-dialogue. In case when the child loses interest in the game or in the toy, the mother is not able to propose anything different; she also has trouble in choosing the appropriate games for him and ignores, for example, the baby’s motor discomfort, etc. If the subjects speak or comment some actions, they do it for themselves or for another adult, who is present at the moment, but not for the child. Vocalizations, gestures and other means of communication and reaction, which are available for the child, are ignored; the mother does not accept them as the answer and does not “mirror” them. The mother often does not actively participate in the child’s game or some of his actions; she does not name the things in the game and silently observes from a distance the child’s manipulations with a toy. During the actions with objects or the pronunciation of

syllables or words, the mother demands quality from the child; in other cases he gets a negative assessment, which facilitates the creation of a failure situation for the child.

The results of comparison between the level of child's psychological development level and the mother's behavior characteristics during the interaction with the child confirmed the link between these parameters. For 94% of the children, who were attributed to the group of delayed development, according to the results of neurological and psychological development assessment, the mother's behavior has "positive contact" (the mothers are sensitive to the child's initiative and signals; they stimulate and maintain contact with words, touches and positive reinforcement, propose various games, etc.). For 76% of the children in EG, who were attributed to the group with severe developmental delay, according to the results of neurological and psychological assessment, the mother's behavior has "negative contact" (the mothers ignore child's signals and initiatives; they do not support the dialogue, have trouble choosing appropriate games and do not actively participate in the games; they give negative evaluation of child's actions, etc.).

The nature of interaction in "mother-child with health limitations" pair is related to mother's activity in child's rehabilitation; 100% of subjects with "positive contact" are actively participating in child's rehabilitation. When the active participation in child's rehabilitation is accompanied by the "negative contact" in interaction (in 26% of the cases), the mother's behavior has certain characteristics: the mother teaches the child to do the "correct" actions with objects and toys while "forgetting" that these skills do not have any independent value and only support the development of child's activity and initiative, that is, the mother focuses on child's achievement of the set developmental goals, but this significance is of formal matter. As a result, children stay at a lower level of development and take a passive position in communication and game.

The obtained results allow comparing the data, describing mother's behavior in child-parent relationship and the quality of interaction in "mother-child with health limitations" pair. According to them, it is possible to define several groups of mothers. For example, mother's active participation in the child's rehabilitation may be combined both with negative and positive contact in the interaction with the child. Moreover, all "mother-child" pairs with positive contact in interaction show active involvement in child's rehabilitation. Negative contact in the interaction, in turn, can be combined with the various behavior of the mother in child's rehabilitation. The results of comparison of child's psychological development level with the characteristics of mother's behavior in interaction with the child are highly significant; they confirm the relation between these parameters. In most cases where mother's behavior has "positive contact", the children are attributed to the group of developmental delay. In "mother-child with health limitations" pairs, where mother's behavior has "negative contact", children usually fall into the group of severe developmental delay.

Conclusion

Owing to the fact that the main factor in the development of infants and young children is the interaction in "mother-child" pair, it is necessary to create a completely new methodologic approach in the framework of developing the system of early assistance for the families fostering children with health limitations. This approach requires rethinking the object of the assistance. The object of early assistance

in special education becomes the interaction between the mother and the child, "mother-child with health limitations" pair and, generally, "a family, fostering a child with health limitations". Therefore, the study object in special pedagogic and special psychology changes as well; it becomes the interaction of mother and child.

Acknowledgement

The article is funded by the Ministry of Education and Science of the Russian Federation, Project 2.1.2 titled "Solving of complex problems of pedagogue's and psychologist's professional competency development in the system of lifelong education" of the Program of Strategic Development of FSBEF HPE, Mordovian State Pedagogical Institute named after M.E. Evseev, for 2012-2016.

References

1. Ainsworth M, Bowlby J (1991) An ethological approach to personality development. *Am Psychol* 46(4): 331-341.
2. Bern E (2010) *Igry, v kotorye igrayut lyudi*. Moskva: Eksmo, 576 s.
3. Winnicott DV (2004) *Semija i razvitie lichnosti rebenka. Mat i ditya*. Ekaterinburg: Litur, 400 s.
4. Vygotskiy LS (2006) *Voprosy detskoy psikhologii*. SPb.: SOYUZ, 224 s.
5. Frager R, Fadiman J (2002) *Personality & Personal Growth*. Retrieved from <http://www.gennadij.pavlenko.name/ex-book?text=841>.
6. Leontyev AN (2005) *Deyatel'nost. Soznanie. Lichnost*. Moscow: Smysl: Akademiya, 346 s.
7. Lisina MI (2009) *Formirovanie lichnosti rebenka v onshenii*. SPb.: PITER "Mastera psikhologii", 320 s.
8. Leifer M (1977) Psychological changes accompanying pregnancy and motherhood. *Genet Psychol Monogr* 95: 55-96.
9. Mercer R (2004) Becoming a mother versus maternal role attainment. *J Nurs Scholarsh* 36(3): 226-232.
10. Bagdasarjyan IS (2000) *Mezhlichnostnye otnosheniya v semye, imeyushey umstvenno otstalogo rebenka. Avtoreferat diss. ...kand. psihol. nauk*. Krasnoyarsk 175 s.
11. Khorosh SM (1991) *Vliyanie pozitsii roditeley na rannee razvitie slepogo rebenka*. *Defektologiya* 3: ss. 88-93.
12. Guslova MN, Sture TK (2003) *Psikhologicheskoe izuchenie materey, vospityvayuschikh detey-invalidov*. *Defektologiya* 6: ss. 28-31.
13. Malofeev NN (2009) *Spetsialnoe obrazovanie v menyayushchemsya mire. Evropa: Ucheb. posobie dlya studentov ped. vuzov*. Moscow: Prosvetshenie, 319 s.
14. Goffman E (1963) *Stigma: Notes on the Management of Spoiled Identity*. Englewood Cliffs, NJ: Prentice Hall, 147p.
15. Nelson A (2003) Transition to motherhood. *J Obstet Gynaecol Neonatal Nurs* 32: 465-477.
16. Saurel-Cubizolles MJ, Romito P, Lelong N (2007) Women's psychological health according to their maternal status: a study in France. *J Psychosom Obstet Gynecol* 28(4): 243-249.
17. Ayyazyan EB, Arina GA (2008) *Stanovlenie vnutrenney materinskoy pozitsii v period beremennosti*. *Defektologiya* 2: ss. 8-15.
18. Brutman VI, Varga AY, Khamitova IY (2000) *Vliyanie semeynykh faktorov na formirovanie deviantnogo povedeniya materi*. *Psikhologicheskij zhurnal* 2: ss., 79-87.
19. Berger J, Cunningham C (1981) Development of eye contact between mothers and normal versus Down syndrom infants. *Dev Psychol* 17: 678-689.
20. Berger J, Cunningham C (1983) Development of early vocal behaviors and interactions in Down's syndrome and non-handicapped infant-mother pairs. *Dev Psychol* 19: 322-331.
21. Emde RN, Brown C (1978) Adaptation to the birth of Down syndrom infants. *J Am Acad Child Psychiatry* 17: 299-323.

22. Nikolskaya OS (2008) *Affektivnaya sfera smyslov, organizuyuschikh soznanie i povedenie*. Moscow: MGPPU, 468 s.
23. Razenkova, YA, Ayvazyan EB, Inevatkina SE, Odinkova GY (2011) *Varianty vnutrenney materinskoj pozitsii materey detey s sindromom Dauna mladencheskogo i rannego vozrasta*. Defektologiya 1: 45-55.
24. Inevatkina SE (2015) *Peculiarities of the inner maternal position of young child with Down syndrome*. Int Educ Stud 8(4): 143-149. (ISSN 1913-9020 E-ISSN 1913-9039 Published by Canadian Center of Science and Education).
25. Edge D, Rogers A (2005) *Dealing with it: Black Caribbean women's response to adversity and psychological distress associated with pregnancy, childbirth, and early motherhood*. Soc Sci Med 61(1): 15-25.
26. Emmanuel E, Creedy DK, St John W, Gamble J, Brown C (2008) *Maternal role development following childbirth among Australian women*. J Adv Nurs 64(1): 18-26.
27. Emmanuel E, St John W (2010) *Maternal distress: a concept analysis*. J Adv Nurs 66(7): 2104-2115.
28. Vardanyan YV, Ruskina EN (2013) *The research of coach's preparation to realization of strategies of formation of psychological safety of the subject of sports activity*. Middle-East J Sci Res 14(7): 965-968. Retrieved from [http://www.idosi.org/mejsr/mejsr14\(7\)13/15.pdf](http://www.idosi.org/mejsr/mejsr14(7)13/15.pdf).
29. Pantyukhina GV, Pechora KL, Frukht EL (1996) *Metody diagnostiki nervno-psikhicheskogo razvitiya detey rannego vozrasta*. Moscow: VUNMTS, 71 s.

Citation: Inevatkina SE (2015) The Influence of Mother-Child Interaction on a Child with Health Limitations. Biol Med (Aligarh) 7(5): BM-151-15, 5 pages.

Submit your next manuscript and get the following advantages

Special features:

- 30 days rapid review process
- Quality and quick editorial, review and publication processing
- Indexing at Scopus, EBSCO, ProQuest, Gale Cengage, and Google Scholar etc
- Authors, Reviewers and Editors rewarded with online Scientific Credits
- Better discount for your subsequent articles

Submit your manuscript at: submissions@biomedonline.com

