

MENTAL WELLBEING OF CHILDREN ENGAGED IN AGRICULTURAL WORK ACTIVITIES AND QUALITY OF FAMILY ENVIRONMENT

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Abstract: A considerable percentage of Polish children from agricultural families are engaged by their parents in performing work activities on farms. The performance of these tasks arouses various emotional reactions in children, from the feeling of threat, fear and anxiety, to the feeling of satisfaction, being contented and proud. The subjective feeling of happiness and life satisfaction is an extremely important factor affecting the mental health and functioning of a human being. The objective of the study was to show to what extent the quality of communication between children and parents, and the level of family cohesion and adaptability according to the Circumplex Model by D. H. Olson *et al.*, modifies children's emotional reactions associated with the tasks performed. The study covered 192 children aged 12-13, whose parents were running a family farm. Growing up in a healthy family characterised by a balanced level of cohesion, adaptability and good communication with the father and mother, favours the occurrence in children of pleasant emotions in reaction to work which they undertake on behalf of their parents on a farm. In such families, more often than in families with bad communication and dysfunctional families (disengaged, rigid), children experience satisfaction, have a feeling of deepening bonds with their parents, and the feeling of being more adult and preparing themselves well for adult life. Family characteristics which are evidence of disorders in its functioning (lack of good communication with the father, mother, lack of bonds between family members, rigid, chaos in a family) co-occur with the child experiencing unpleasant emotional states in associated with the work performed, there occur feelings of dissatisfaction, unhappiness, unpleasantness, the feeling that it would be better to learn than to work.

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INTRODUCTION

Children whose parents are farm owners often help in performing various work activities, both within the household and in fields. The studies conducted to-date show that the engagement of children in work exerts a significant influence on their functioning. The quality and intensity of this influence depends on many factors, mainly on the type of work activity performed and amount of time devoted to

work. The performance of dangerous activities, also within long working time, negatively affects various indicators of the functioning of a child [9]. Therefore, it may be presumed that an improper engagement of children in work may create risk for their physical, mental and social development [8].

To date, the relationship between the characteristics of work activities performed (hazards associated with it, working time, etc.), and various indicators of functioning of a child, (e.g. height, body weight, health status, education

results, etc.) was in the focus of interest of researchers dealing with the problem of children's work. However, an equally important issue which, until now, has been neglected by researchers, is the problem of children's emotional reactions accompanying performance of agricultural activities.

Children react in various ways to the situation of engaging them in work on a family farm or household. While helping their parents they may experience joy, satisfaction, pride, or they may feel unhappy, used, deprived of the possibility for education or games. The attitude of a child towards being engaged in work is a very important problem because, as an element of the child's attitude towards life in general, it exerts a significant effect on the shaping of the quality of life of the child. The concept of life quality is associated with such concepts as health, well-being, high material standard, happiness [19].

The subjective feeling of happiness and life satisfaction is an extremely important factor affecting the functioning of a human being. The results of studies indicate that people who have a subjective feeling of happiness and satisfaction are more active and have a more kind disposition, they have more courageous and more extensive goals, better relations with others, they live longer and enjoy better physical health [17]. These people, being more active, have more creative thinking, and more often possess internal incentives [6]. Happy people who are satisfied with life more eagerly create bonds with others, and are more willing to help others [16]. Thus, experiencing happiness favours good cognitive and social functioning, intensifies internal motivation, increases the level of occupational and social activity, and improves health [19]. For each person, especially for a child, it is extremely important to feel happy and satisfied as frequently as possible. According to Argyle [1], the feeling of happiness and life satisfaction is determined by the frequency and intensity of experiencing pleasant emotions. Therefore, it is important for the feeling of happiness of children helping their parents with work activities on farms that the work activities undertaken were accompanied by pleasant emotional states as frequently as possible, whereas unpleasant emotions and feelings – as rarely as possible.

The performance of work activities by children causes negative phenomena, such as: accidents, limited possibilities of intellectual development, as well as limited possibilities for effective leisure and entertainment. Children often perceive work as a difficult situation accompanied by negative emotional states. However, it is not always perceived in this way, and always associated with unpleasant emotional states [10, 11]. In this study, it is assumed that the type of emotional experiences accompanying children engaged in work activities depends on the quality of the family environment. Family environment is characterised by 3 features: communication with mother and father, level of coherence and family adaptability. The researcher dealing with the family agrees that these are key diameters for

the understanding of family functioning and the determination of features characterising a healthy family [4].

Cohesion, adaptability and communication – these are the 3 primary dimensions integrated in the Circumplex Model as formulated by David H. Olson, Candyce Russel and Douglas Sprenkle [15]. This model has been widely applied in scientific studies and clinical practice, where it is used for the determination of the goals and effects of family therapy [7].

Family cohesion assesses the degree to which family members are separated or connected to their family. Family cohesion is defined as the emotional bonding between family members.

Family adaptability (change) concerns the extent to which the family system is flexible and its ability to change. Family adaptability is defined as the ability of a marital or family system to change its power structure, role relationships, and relationship rules in response to situational and developmental stress [14].

Family communication is the third dimension and facilitates movement on the other two dimensions.

Within the Circumplex Model, there are 4 levels of family cohesion, ranging from extreme low cohesion to extreme high cohesion: disengaged, separated, connected, and enmeshed. The two moderate or balanced levels of cohesion have been labelled separated and connected. There are also 4 levels of family adaptability, ranging from extreme low adaptability (change) to extreme high adaptability (change): rigid, structured, flexible, and chaotic. The two moderate or balanced levels of adaptability have been labelled flexible and structured [14]. For each dimension, the balanced levels (two moderate levels) are hypothesized to be the most viable for healthy family functioning, and the extreme areas are generally seen as more problematic for couples and families over time [14]. Olson postulated that well-functioning families must have blended (middle-levelled) qualities of adaptability and cohesion. Each of these theoretically orthogonal dimensions is viewed as relating to family competence/health in a curvilinear fashion, so that too little or too much of those qualities should be associated with family dysfunction [5].

In the presented study the following hypotheses were adopted:

- children from healthy families, i.e. families presenting a balanced level of cohesion or adaptability, and children possessing good communication with mother and father, significantly more often than children from other types of families will experience pleasant emotional states associated with performing work on a farm and in the household.
- children growing in dysfunctional families, characterised by an extreme level of cohesion (enmeshed, disengaged), or an extreme level of adaptability (chaos, rigid), and children deprived of good communication with mother and father, will experience negative emotional states in association with farm and household work performed more often than children from other types of families.

MATERIALS AND METHODS

The research material was collected by means of three techniques: 1) Questionnaire form concerning children's emotional reactions accompanying their performance of agricultural activities; 2) Parent – Adolescent Communication Scale, Barnes and Olson [2]; 3) Family Adaptability and Cohesion Evaluation Scale (FACES), version III, Olson, Portner and Lavee [14].

The questionnaire form concerned, among other things, such problems as: time devoted by a child to performing work activities on farm, and emotional reactions experienced by a child in association with engagement in agricultural activities. The child examined indicated how frequently he/she experiences specified emotional states in association with performing work activities on a farm.

Based on the Parent – Adolescent Communication Scale, the quality of a child's communication was determined, separately from the father and mother. The evaluation of communication with the mother and father was carried out according to the children's perception. The application of Family Adaptability and Cohesion Evaluation Scale (FACES III) enabled the estimation of the level of family cohesion and adaptability.

The presented results of studies are a fragment of more extensive research conducted in 2003, which covered a group of 998 children from agricultural families, whose parents possessed their own farms. A group of 192 children were selected from the total number of children in the study, who devoted a similar amount of time to work in the household and on the farm. The children examined devoted 1.88 hours daily to helping their parents on the farm, on average, and 1.69 hours on average to household work.

Children in the study were aged 11.5-13.5. Less than half were boys (47.4%) while the remaining percentage were girls (52.6%).

RESULTS AND DISCUSSION

The objective of the study was the search for a reply to the question: what emotional states do children experience in association with their engagement by parents in work on a farm and searching for factors which shape these emotional reactions.

In the presented studies, the following groups of children were distinguished: three groups according to the level of cohesion presented by their families (families disengaged, enmeshed, and with a balanced level of cohesion), three groups according to the level of adaptability represented by their families (rigid, chaotic, and with a balanced level of adaptability), three groups which differed according to the level of communication with the father, and three groups according to communication with the mother. In each subgroup, the children did not differ with respect to time devoted to help with household and farm work.

The results of the studies demonstrated that children from comparable subgroups, although engaged in work to a similar degree (there is a lack of statistically significant differences between mean time devoted to work), differ with respect to emotional states experienced in connection with work activities performed and evaluation of their own engagement in work on behalf of a family. Children from disengaged families most often evaluated their engagement as small, whereas children from enmeshed families most frequently considered their engagement as great (Tab. 1). Children from families with a balanced level of cohesion

Table 1. Evaluation of engagement in work and level of family cohesion.

Evaluation of engagement	The level of family cohesion						Total	
	Disengaged		Balanced		Enmeshed		n	%
	n	%	n	%	n	%		
Small	9	37.5	13	13.1	6	11.8	28	16.1
Moderate	8	33.3	61	61.6	23	45.1	92	52.9
Great	7	29.2	25	25.3	22	43.1	54	31.0
Total	24	100.0	99	100.0	51	100.0	174	100.0

($\chi^2=15.216$; $p=0.004$)

Table 2. Frequency of experiencing extreme fatigue after work and level of family cohesion.

Frequency	The level of family cohesion						Total	
	Disengaged		Balanced		Enmeshed		n	%
	n	%	n	%	n	%		
Once a week	8	33.3	30	30.3	6	11.8	44	25.3
More rarely	11	45.8	35	35.4	18	35.3	64	36.8
Never	5	20.8	34	34.3	27	52.9	66	37.9
Total	24	100.0	99	100.0	51	100.0	174	100.0

($\chi^2=11.122$; $p=0.025$)

Table 3. Feelings experienced by children in association with performing agricultural work activities and level of family cohesion

Feelings experienced	Level of family cohesion					
	Disengaged		Balanced		Enmeshed	
	n	%	n	%	n	%
Feeling unhappiness ($\chi^2=5.487$; $p=0.064$)						
Experiences	8	34.8	18	19.4	5	11.1
Doesn't experience	15	65.2	75	80.6	40	88.9
Total	23	100.0	93	100.0	45	100.0
Unpleasantness because parents are dissatisfied with my work ($\chi^2=4.865$; $p=0.088$)						
Often	4	16.7	8	8.4	1	2.1
Rarely or never	20	83.3	87	91.6	47	97.9
Total	24	100.0	95	100.0	48	100.0
Satisfaction because parents are less tired ($\chi^2=17.242$; $p=0.001$)						
Often	10	43.5	66	68.8	44	89.8
Rarely or never	13	56.5	30	31.3	5	10.2
Total	23	100.0	96	100.0	49	100.0
Dissatisfaction caused by necessity to work ($\chi^2=14.521$; $p=0.001$)						
Experiences	17	70.8	31	34.8	12	25.5
Doesn't experience	7	29.2	58	65.2	35	74.5
Total	24	100.0	89	100.0	47	100.0
Dissatisfaction because of lack of time to play ($\chi^2=5.095$; $p=0.078$)						
Experiences	15	62.5	43	45.7	17	34.7
Doesn't experience	9	37.5	51	54.3	32	65.3
Total	24	100.0	94	100.0	49	100.0
Satisfaction because work is more quickly performed ($\chi^2=9.694$; $p=0.008$)						
Often	11	50.0	67	70.5	41	85.4
Rarely or never	11	50.0	28	29.5	7	14.6
Total	22	100.0	95	100.0	48	100.0
Satisfaction because income is higher ($\chi^2=12.963$; $p=0.002$)						
Often	6	27.3	57	58.8	35	72.9
Rarely or never	16	72.7	40	41.2	13	27.1
Total	22	100.0	97	100.0	48	100.0
Satisfaction because I prepare well for life ($\chi^2=19.11$; $p=0.000$)						
Often	5	22.7	63	64.9	36	76.6
Rarely or never	17	77.3	34	35.1	11	23.4
Total	22	100.0	97	100.0	47	100.0
Feeling of being closer to parents ($\chi^2=9.391$; $p=0.009$)						
Often	8	33.3	58	62.4	33	70.2
Rarely or never	16	66.7	35	37.6	14	29.8
Total	24	100.0	93	100.0	47	100.0
Feeling of stronger love towards parents ($\chi^2=5.998$; $p=0.05$)						
Often	15	65.2	68	70.1	41	87.2
Rarely or never	8	34.8	29	29.9	6	12.8
Total	23	100.0	97	100.0	47	100.0
Satisfaction because parents are grateful ($\chi^2=5.998$; $p=0.05$)						
Often	15	65.2	79	81.4	42	87.5
Rarely or never	8	34.8	18	18.6	6	12.5
Total	23	100.0	97	100.0	48	100.0
Satisfaction because parents endowed them with great love ($\chi^2=4.764$; $p=0.092$)						
Often	8	34.8	52	55.9	28	62.2
Rarely or never	15	65.2	41	44.1	17	37.8
Total	23	100.0	93	100.0	45	100.0

considerably more often expressed opinions that they are engaged in work to a moderate degree ($p=0.04$).

Children engaged in work to the same degree differ with respect to the frequency of experiencing the feeling of very great fatigue, hindering of school education. Most often, the feeling of great fatigue is experienced by children from disengaged families (Tab. 2). In this group, 33.3% of children experience the feeling of great fatigue at least once a week, while among children from enmeshed families – only 11.8% ($p=0.025$). Among children from enmeshed families every second child declared that it never felt great fatigue, whereas in disengaged families only every fifth child did not feel so very tired.

Growing in a family characterised by a balanced level of cohesion or enmeshed favours the occurrence in children of pleasant emotional states accompanying agricultural work. These children experience satisfaction significantly more often than children from disengaged families. Satisfaction is due to the perception of benefits which work brings to a family (Tab. 3). Children are satisfied, because, thanks to their help, the family income increased (72.9% of children from enmeshed families and 58.8% in families with a balanced cohesion level, and only 27.3% of children from disengaged families; $p=0.002$), and work was performed more quickly (85.4%, 70.0%, and 50.0% respectively; $p=0.008$). Children also perceived satisfaction for the reason that they noticed that, due to their help, parents were less tired (89.8% of children from enmeshed families, 68.8% of children from families with a balanced level of cohesion, and only 43.5% of children from disengaged families ($p=0.01$).

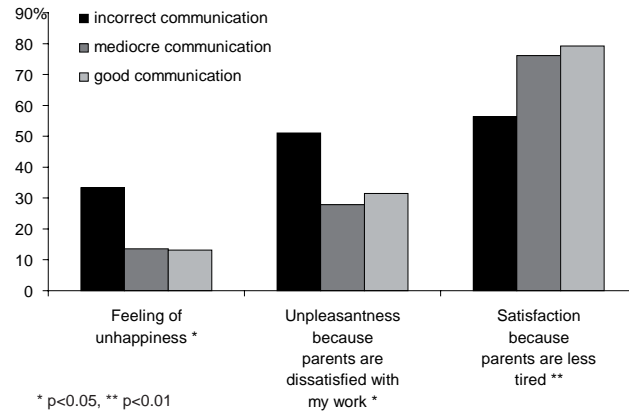
Children from enmeshed families and those with a balanced level of cohesion, significantly more often than children from disengaged families, experience satisfaction, also for the reason that in their opinion, helping parents fastened bonds between them (Tab. 3). These children more frequently experienced close emotional contact with their parents (70.2%, 62.4% and 33.3%, respectively; $p=0.009$), they have a feeling that helping parents deepens the feeling of love towards their parents (87.2%, 70.0% and 65.2%, respectively; $p=0.05$), they also had the feeling that their parents endowed them with greater love (62.2%, 55.9% and 34.8%; $p=0.09$), and these children more frequently experienced gratitude on the part of their parents (87.5%, 81.4% and 65.2%; $p=0.08$). Moreover, children in enmeshed families (76.6%) and those with a balanced level of cohesion (64.9%), significantly more often than children in disengaged families (22.7%), experience satisfaction because performing work provided them a feeling of being well-prepared for adult life ($p=0.001$).

Growing up in a dysfunctional family, which is characterised by lack of bonds between its members, favours the feeling of dissatisfaction, being unhappy, unpleasantness (Tab. 3). Dissatisfaction in association with the necessity to help parents is experienced by as many as 70.8% of children in disengaged families, only by 25% of children in

Table 4. Feelings experienced by children in association with performing agricultural work activities and level of family adaptability.

Feelings experienced	The level of family adaptability					
	Rigid		Balanced		Chaotic	
	n	%	n	%	n	%
Feeling of unhappiness ($\chi^2=5.646$; $df=2$; $p=0.059$)						
Experiences	1	7.1	20	27.0	10	13.7
Doesn't experience	13	92.9	54	73.0	63	86.3
Total	14	100.0	74	100.0	73	100.0
Unpleasantness because parents are dissatisfied with my work ($\chi^2=4.788$; $df=2$; $p=0.09$)						
Experiences	7	46.7	18	24.0	29	37.7
Doesn't experience	8	53.3	57	76.0	48	62.3
Total	15	100.0	75	100.0	77	100.0
Satisfaction because I prepare well for life ($\chi^2=6.060$; $df=2$; $p=0.048$)						
Often	5	33.3	50	65.8	49	65.3
Rarely or never	10	66.7	26	34.2	26	34.7
Total	15	100.0	76	100.0	75	100.0
Dissatisfaction caused by necessity to work ($\chi^2=4.559$; $df=1$; $p=0.1$)						
Often	0	0.0	4	5.5	10	13.7
Rarely or never	14	100.0	69	94.5	63	86.3
Total	14	100.0	73	100.0	73	100.0
Dissatisfaction caused by feeling that help is insufficient ($\chi^2=4.810$; $df=2$; $p=0.09$)						
Often	1	6.7	15	20.0	23	30.3
Rarely or never	14	93.3	60	80.0	53	69.7
Total	15	100.0	75	100.0	76	100.0
Feeling of being more adult ($\chi^2=7.902$; $df=2$; $p=0.019$)						
Experiences	1	6.7	33	44.6	33	43.4
Doesn't experience	14	93.3	41	55.4	43	56.6
Total	15	100.0	74	100.0	76	100.0

enmeshed families, and in 33% of children in families with a balanced level of cohesion ($p=0.001$). Children from disengaged families more often feel dissatisfied, because they have no time for play because of the work performed. In disengaged families, this problem is reported by 62.5% of children. In comparison, similar declarations are made by only 34.7% of children from enmeshed families ($p=0.078$). The performance of work activities on parents' farm by children from disengaged families, more frequently than in the case of the remaining children, is associated with the feeling of unhappiness (34.8% of children from families without bonds and 19.4% of children from families with a balanced level of cohesion; $p=0.064$), and with experiencing the feeling of unpleasantness caused by the parent expressing dissatisfaction with the way in which a child performs work (16.7% of children in disengaged families, 8.4% of children in families with a balanced level of cohesion and 2.1% of children in enmeshed families, $p=0.088$).

**Figure 1.** Feelings experienced by children in association with performing agricultural work activities and quality of communication with mother.

The dimension of family adaptability is more rarely important for the shaping of emotional states of working children (Tab. 4). A balanced and chaotic level of family adaptability favours the occurrence in a child of satisfaction in association with work on a farm, because a child considers that due to this work it prepares itself well for adult life (approx. 65% of children in families with balanced adaptability and chaotic families, and only 33.3% of children from rigid families; $p=0.048$). Moreover, balanced adaptability and chaos in a family are conducive for the occurrence in a child of a feeling of being adult (44.6% and 43.4% respectively, in rigid families such feelings are experienced by only 6.7% of children; $p=0.019$). Apart from pleasant emotional states, chaos in a family favours the occurrence of unpleasant emotional states. Children in chaotic families, more often than those from other types of families, feel dissatisfied with the necessity to work on parents' farm (13.7%; $p=0.1$) and have a feeling that their help is insufficient (30.3%; $p=0.09$). The feeling of unpleasantness caused by parents expressing dissatisfaction with the work performance of a child is most often experienced by children in rigid families (46.7%, $p=0.09$).

Apart from family coherence and adaptability, the quality of communication with parents is also associated with the occurrence of various emotional states in a working children. Good communication with the mother and father favours the experiencing by a child of satisfaction with its work, because a child notices that thanks to its parents' help, he/she is less tired (Fig. 1 and 2). In families where there is a lack of good communication, about 50% of children never or almost never experience satisfaction with their own work. In families with good communication, satisfaction with work is not experienced by a percentage of children which is twice as small (approx. 20%). Good communication between a child and the mother and father is conducive for the child experiencing satisfaction with own work because of the conviction that, thanks to its engagement in work, the tasks on a farm are performed quicker ($p=0.074$). In families where there is a lack of good communication with the father, the percentage of children

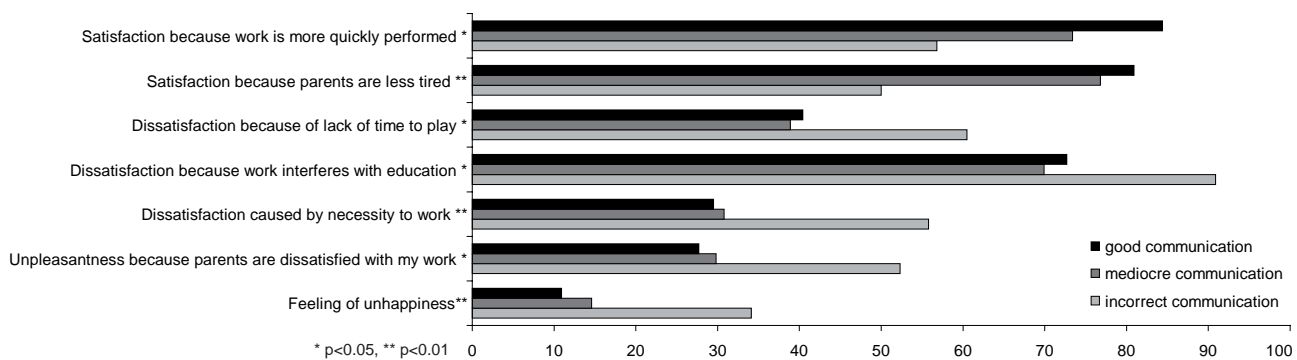


Figure 2. Feelings experienced by children in association with agricultural work activities performed and quality of communication with father.

feeling such emotions as: dissatisfaction with the necessity to work ($p=0.01$), experiencing the feeling of unhappiness due to the necessity to work ($p=0.007$), dissatisfaction with the lack of time for play ($p=0.051$), the feeling that education is preferable to work ($p=0.024$), unpleasantness in association with parents criticising their way of performing work ($p=0.018$), increases twofold, compared to the group of children from families with good or even mediocre communication with the father. Children deprived of good communication with the mother more often experienced the feeling of unpleasantness ($p=0.05$) and unhappiness ($p=0.012$) in association with the work performed.

CONCLUSIONS

In summing up, it may be presumed that the quality of relationships within a family (quality of communication with the father and mother), and quality of family environment in the dimensions of cohesion and adaptability, are important factors affecting the type of emotional states experienced by a child in association with work activities performed in the household and on a farm.

It may be assumed, therefore, that although the degree of workload on a child is an important factor affecting the quality of his/her life, and subjective feeling of happiness and satisfaction, this is not the only factor. The characteristics of the family environment in which a child grows up is equally as important. The results of the presented studies are consistent with opinions to-date emphasizing the importance of a family context for health and development of family members, especially children.

The World Health Organization [18] distinguishes five factors important for the health and well-being of children and young people. These factors are: meaningful relationships with adults and peers; parental structure and boundaries for behaviours; encouragement of self-expression; opportunities for participation with their contributions being valued; educational, economic and social opportunities and minimal risk of injury, exploitation, or disease. Christensen [3] presented a “health-promoting family” model, highlighting the importance of family for children’s health and well-being.

According to the adopted hypotheses, growing up in a healthy family characterised by a balanced level of cohesion, adaptability and good communication with the father and mother, favours the occurrence in children of pleasant emotions in reaction to work which they undertake on behalf of their parents on a farm. In such families, more often than in families with bad communication and dysfunctional families (disengaged, rigid), children experience satisfaction, have a feeling of deepening bonds with their parents, and the feeling of being more adult and are preparing themselves well for adult life. The presented results confirm the hypothesis of the Circumplex Model, according to which balanced families will function more adequately than unbalanced families [13]. The data obtained are consistent with the results of other studies, where the FACES was applied [12].

It appears that an excessive bonding with family members (enmeshing) is also conducive to experiencing pleasant emotional states in association with the work performed. According to the concept of cohesion by Olson *et al.*, it should be expected that enmeshing co-occurs with negative indicators of the functioning of the child. Most probably, advanced research techniques have not revealed the negative aspects of enmeshed families, but underlined the positive aspects of these families, such as great mutual interest of family members, high flow of information between family members, and the high feeling of community and affiliation. Children in families which are enmeshed and those with balanced cohesion have a feeling that they know a lot about the principles of work safety in agriculture, and are of the opinion that children should help their parents. In addition, in enmeshed families, despite the fact that children most often describe their engagement as high, at the same time, they most rarely experience fatigue.

Contrary to expectations, chaotic families (similar to those with a balanced level of adaptability) also favour such positive reactions as the feeling of being adult and the feeling of being well preparing for adult life. However, in healthy families with a balanced level of adaptability, these emotions are accompanied by awareness of the hazards associated with work, while in chaotic families children have a feeling that their help is insufficient and they

are not aware of risks which may be connected with work on a farm.

It may be presumed that family characteristics which are evidence of disorders in its functioning (lack of good communication with the father, mother, lack of bonds between family members, rigid, chaos in a family) co-occur with the child experiencing unpleasant emotional states in associated with the work performed, there occur feelings of dissatisfaction, unhappiness, unpleasantness, the feeling that it would be better to learn than to work. It is noteworthy that in disengaged families, children most often evaluate their engagement as small, and simultaneously most frequently experience great fatigue. It should be also emphasized that the dimension of family cohesion, more often than the dimension of adaptability, was significantly connected with various emotional reactions accompanying children at work. While analysing the importance of communication with parents it was found that communication with the father turned out to be more important than that with the mother, with incorrect communication being more frequently significant.

REFERENCES

1. Argyle M: *The psychology of happiness*. Methuen, London 1987.
2. Barnes HL, Olson DH: Parent-adolescent communication and the Circumplex Model. Special Issue: Family development. *Child Dev* 1985, **56**, 438-447.
3. Christensen P: The health promoting family: a conceptual framework for future research. *Soc Sci Med* 2004, **59**, 377-387.
4. Olson DH: Commentary: three-dimensional (3-D) Circumplex Model and revised scoring of FACES III. *Fam Process* 1991, **30**, 74-79.
5. Hampson RB, Hulgus YF, Beavers WR: Comparisons Self-Report Measures of the Beavers System Model and Olson's Circumplex Model. *J Fam Psychol* 1991, **4(3)**, 326-340.
6. Kocowski T, Tokarz A: Prokreatywne i antykreatywne mechanizmy motywacji aktywności twórczej. **In:** Tokarz A (Ed): *Stymulatory i inhibitory aktywności twórczej*, 79-95. UJ, Kraków 1991.
7. Cook-Darzens, Doyen C, Fallisard B, Mouren M-C: Self-perceived family functioning in 40 french families of anorexic adolescents: Implications for therapy. *Eur Eat Dis Rev* 2005, **13**, 223-236.
8. Lachowski S: Family conditioning of attitudes of rural children towards health. *Ann Agric Environ Med* 1995, **2**, 121-123.
9. Lachowski S: *Praca dzieci wiejskich a ich rozwój fizyczny i stan zdrowia*. IMW, Lublin 1999.
10. Lachowski S, Bujak F, Zagórski J: Obciążenie pracą dzieci z rodzin rolniczych. IMW, Lublin 1998
11. Lachowski S, Bujak F, Zagórski J, Lachowska B: Postawy rodziców wobec angażowania dzieci do prac we własnym gospodarstwie rolnym. IMW, Lublin 2002
12. Olson DH: Clinical assessment and treatment interventions using the Circumplex Model. **In:** Kaslow FW (Ed.): *Handbook of Relational Diagnosis and Dysfunctional Family Patterns*. John Wiley and Sons, New York 1996.
13. Olson DH: Circumplex Model of Marital and Family Systems. *J Fam Ther* 2000, **22**, 144-167
14. Olson DH, Portner J, Lavee Y: *FACES III*. University of Minnesota 1985.
15. Olson DH, Russell C, Sprenkle DH: Circumplex model of marital and family systems: Cohesion and adaptability dimensions, family types, and clinical applications. *Fam Process* 1979, **18**, 3-28.
16. Rosenhan DL, Seligman MEP: *Psychopatologia*. PTP, Warsaw 1994.
17. Veenhoven R: Questions on happiness: classical topics, modern answers, blind spots. **In:** Strack F, Argyle M, Schwarz N (Eds): *Subjective well-being. An interdisciplinary perspective*. Pergamon Press, Oxford 1991.
18. World Health Organisation. *Programming for adolescent health and development: "What should we measure and how?"*. Report of the third meeting. DC Washington 2001.
19. Zalewska A: *Dwa światy. Emocjonalne i poznawcze oceny jakości życia i ich uwarunkowania u osób o wysokiej i niskiej reaktywności*. Academica, Wydawnictwo SWPS, Warszawa 2003.