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Scientific journal *Social Welfare: Interdisciplinary Approach* is a joint periodic international research edition of Lithuania and Ukraine that presents methodological studies and researches of authors from different countries, reflects variety of scientific sociocultural schools and topics concerning interdisciplinary approach in the understanding of human social welfare. The articles published in the journal are reviewed by two members of the editorial board or their appointed experts. The journal is published twice a year: in June and in December of each year. June edition is published in Šiauliai University (Lithuania). December edition is published in Open International University of Human Development “Ukraine” (Ukraine)

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Address in Lithuania:

Šiauliai University
Faculty of Social Welfare and Disability Studies
25 P. Višinskio Str.,
Šiauliai, LT-76351 Lithuania

Contact person:

Šapelytė Odeta
E-mail address: socialwelfare@su.lt
Website: <http://www.socialwelfare.su.lt/>
Tel: +370 41 595754

Address in Ukraine:

Open International University of Human
Development “Ukraine”
Social Technologies Institute
23 Lvivska str., of 110-1, Kyiv, 03115
Ukraine

Contact person:

Kozlikovska Nadiia
E-mail address: socialwelfareUA@gmail.com
Website: <http://en.vmurol.com.ua/>
Tel: +38 067 4475188

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Preface by Editors-in-Chief

The seventh issue of the journal *Social Welfare: Interdisciplinary Approach* has been presented to the academic community. In the journal, the traditional chapters remain “Social Challenges”, “The Development of Professional Competences” “Disability Studies”, and “Psychosocial Rehabilitation”. We are glad that the publication features the researches of 27 authors that represent the areas and schools of social sciences of Europe (Ukraine, Lithuania, & Russia) and United States of America. The articles present a wide spectrum of ideas that have been realized in applying innovative research strategies and it allows to learn about the social reality of different countries, the problems of variety, to analyze and go deeper into scientifically justified ideas of positive experience that produce new knowledge of social welfare of a person who lives in a modern world.

It is pleasing that the present issue of the journal presents the abundant researches of the scientists from the United States of America: Kent State University, Texas Christian University, University of Nebraska-Lincoln, Boys Town National Research Institute, Louisiana State University. For that we are grateful to the member of the editorial board Assoc. Prof. Dr. Philip David Nordness from University of Nebraska at Omaha, because his sincere and constructive work in the editorial board of the journal has gathered quite a lot of like-minded people who with their research actively participate in the production of new knowledge emphasizing interculturality and interdisciplinarity of social welfare.

In each thematic part of the journal we can find manuscripts of authors who represent different countries and it proves the unity of problems of universal social welfare. In the thematic part of *Social Challenges* we can learn more about cooperation possibilities of social educators and parents (*D. Alifanovienė, A. Vaitkevičienė & Ž. Musvicienė*), features and factors of professional self-fulfillment of skilled people (*O. M. Kokun*); paradoxicality of the activity of institutional education (*A. Juodraitis & O. Šapelytė*). Four publications are devoted to the questions of *Development of Professional Competences*: professional development of specialists of early intervention (*S. Harjusola-Webb, A. Lyons & M. Gatmaitan*), occupational motivation of music teachers as a factor of social wellbeing (*G. Gabnytė & D. Strakšienė*), personal modus of future specialists’ self-realization (*L. Serdiuk*), the structure of an online assessment of science and social studies content (*P. Mooney, K. S. McCarter, R. J. Russo & D. L. Blackwood*). Thematic part of *Disability Studies* analyse the development of Functional Mathematical Literacy of Pupils with Moderate Special Educational Needs (*L. Tomėnienė*) and health literacy status of youth with disabilities in a residential treatment setting (*J. N. Huscroft-D’Angelo, A. L. Trout, M. H. Epstein & R. W. Thompson*). The part of the journal *Psychosocial Rehabilitation* presents the researches about links between adolescents’ subjective health assessment, type of physical activity and posture (*D. Mockevičienė et al*), social domain aspect of subjective wellbeing of elderly (*G. Vaznonienė*), problems of emotional adjustment in the process of restorative art-therapy *L. D. Lebedeva*).

The researches that are published in the present issue of the journal reflecting the variety of topics and scientific methodological positions highlight the aspiration to substantiate the dimensions of human welfare and full participation in society with a scientific thought.

The journal included is indexed/abstracted in EBSCO: SocINDEX with Full Text (<http://search.ebscohost.com>) and Copernicus Index database.

Editors-in-chief express thanks to the authors, editorial board, director of the library of Šiauliai University, staff of the publishing office and everyone who has contributed to the publication of the journal "Social Welfare Interdisciplinary Approach", because it the evaluation of the joint work of everyone. Special thanks go to our readers. By inviting you for the collaboration, we believe that scientific ideas promoted in our journal will serve for the welfare of all of us.

*Editors-in-Chief Ingrida Baranauskienė
and Kateryna Kolchenko*



ANALYSIS OF SOCIAL EDUCATORS' AND PARENTS' COOPERATION POSSIBILITIES: PROMOTING AND HINDERING FACTORS

Daiva Alifanovienė, Asta Vaitkevičienė, Žydra Musvicienė
Šiauliai University

Abstract

The article deals with the peculiarities of social educators' and parents' cooperation possibilities in schools. The article presents the analysis of a qualitative semi-structured interview with parents (N=15) and a quantitative study with school educators (N=176). Employing targeted content analysis of parents' and teachers' opinion and written quantitative questionnaire, the peculiarities and possibilities of the cooperation between the participants of the educational process have manifested themselves. These include possible cooperation areas, factors promoting and hindering this process.

Key words: cooperation, social education, social educator.

Introduction

In the modern society one of the key characteristics of the organisation in the learning society is cooperation grounded activity. According to Hargreaves (1999), one of emergent and most promising meta-paradigms of the post-modern age is that of collaboration as an articulating and integrating principle of action, planning, culture, development, organisation and research. Cooperation becomes an efficient response to the world, which makes it impossible to foresee problems, when the solutions of the latter are unclear and requirements become increasingly intensive. In such context cooperation is diverse, broad and is offered as a solution for many various challenges with which the society, educational institutions and their communities encounter. Hence, at the moment, cooperation is a particularly significant factor of society improvement and development, which is treated by scientists as a modern approach and strategy, in which the educator's new position towards pupils and families manifests itself. This position manifests itself by a pedagogical ability to treat participants of the educational process as tantamount partners (Kontautienė, 2006, 2010).

The Dictionary of Modern Lithuanian Language (1993) defines "cooperation" as a joint work acting together, concentrating intellectual capacities, helping each other and joining forces. The scientists' community has to acknowledge that we can hardly find a common, universal cooperation model that would be suitable for various social welfare areas; the activities of communities of educational and upbringing institutions is not an exception. Moreover, communities of these institutions encounter with substantial challenges, complicated social and educational problems because learners' experience becomes increasingly intense and diverse, it happens to work with children from single parent families or from families who went abroad, with children who are inclined to commit a crime, poor achievers. A big share of responsibility for children's welfare falls on educators, who would find it difficult to provide quality support and ensure children's welfare on their own, without the assistance and collaboration with families, school and other institutions (Dobranskienė, 2002; Ališauskienė & Miltenienė, 2003; Merfeldaitė, 2007, 2009a; Anafara & Mertens, 2008; Kontautienė, 2010). Collegial cooperation enables decision making, sharing responsibilities between the participants of the educational process and search for new solutions.

Important national documents on education development provide for the development and cooperation of educational and upbringing institutions, cooperation, constant exchanges of opinions among specialists, groups of the society and input in common educational aims, organisation and implementation of socio-educational initiatives, thus creating possibilities for a young person to become independent, responsible and creating (Law on Education of the Republic of Lithuania¹, 2011, State Education Strategy for 2013–2022).

Lithuania's Progress Strategy "Lithuania 2030" speaks about the acknowledgement of social exclusion existing in the society, breaches of rights of its people, particularly children, it provides for the improvement of their life quality, social welfare and equal opportunities. Creation of an enterprising, creative, solidary and learning society is discussed in the strategy, additionally providing for social inclusion and participation of vulnerable groups of the society, particularly children. Child Wellbeing Programme for 2013–2018 provides for meeting the learner's interests and needs, creating conditions for the child to grow in the family, developing cooperation between institutions and specialists, availability of miscellaneous preventive and complex support and services in order to reduce social exclusion and ensure the quality of social education.

Referring to the aforementioned documents, it can be stated that seeking successful changes in the society, it is of utmost importance that changes in the main environment of personality education should be initiated: the family, the system of education, community, public and cultural space. On the other hand, according to Vaitkevičius (1995), Juodaitytė (2002), Randolph, Teasley, & Arrington (2006), Gerulaitis (2007), Anafara, & Mertens (2008), Aramavičiūtė (2009), Ratcliff & Hunt (2009), the family cannot cover all life areas and problems arising in them. Therefore, the necessity is underlined that the family should cooperate with other public institutions, in the first place, of course, *the school*, which in turn addresses many other educational institutions, voluntary services, cultural institutions for support. The authors disclose the functions of these educational institutions, their activity forms, the importance for personality development and socialisation. *Systemic-structural* perception of social education factors is particularly important as it distinguishes the functions and interrelations of participants of the educational process, acting in various educational and upbringing institutions, social support institutions, laying foundations for an integral system of actions. This integral system of factors of social education must encompass the system of various educational institutions, distinguish their interrelationships, procedural-historical collaboration of the participants of the educational process, the very learner's self-education and this way lay the foundations for an integral system of factors of education and support (Vaitkevičius, 1995; Bitinas, 2000).

According to the authors Butkienė & Kepalaitė (1996), Teresevičienė & Gedvilienė (2000), Ališauskienė (2005), cooperation encompasses the pursuit of a common aim, which presupposes interaction, cooperation between the participants of the educational process and coordination of joint actions, requiring mutual respect and trust. The authors acknowledge that no universal model of cooperation, social and educational support provision, which could function in any educational environment, exists and it can hardly exist. It is a multidimensional process, containing many interacting ecological factors: peculiarities of personalities (learners', parents', educators'), social and cultural context of the educational environment.

How do parents and educators perceive and evaluate the importance of cooperation between the participants of the educational process, their abilities and efforts? What cooperation successes and hindrances do they envisage? Namely these questions define the problematic space of the presented study.

¹ Lietuvos Respublikos švietimo įstatymo pakeitimo įstatymas (2011).

Research aim: to analyse social educators' and parents' cooperation possibilities at school, to disclose the factors promoting and hindering this process.

Research subject: social educators' and parents' cooperation possibilities at school, factors promoting and hindering them: the dimension of educators' and parents' opinion.

Research methodology and sample. To disclose educators' and parents' opinion qualitative and quantitative research approaches were chosen. The quantitative study was attended by 176 school educators of different age and gender. The study was conducted employing a closed type questionnaire, compiled on the basis of the researches and practical experience of Kontautienė (2010), Merfeldaitė (2009a; 2009b), Vaitkevičius (1995). It was sought to disclose the respondents' efforts and abilities to cooperate. Using *Likert* type scale, the respondents had to rate the statements according to the intensity of the opinion ranging from *certainly yes* to *certainly no*. To check the empirical data the SPSS 17 version was used, descriptive statistics (unitary, percentage frequency, mean, standard deviation) and statistical analysis Student t criterion ($t \leq 0,095$) were employed. In order to evaluate internal reliability of the questionnaire, *Cronbach α* indicator was used (internal consistency measure – α coefficient); it is treated as sufficient when it exceeds 0,75 digital representation.

Qualitative data collection method (semi structured *interview* method) was used to find out parents' (N=15) attitude. *Interview* questions were prepared on the basis of the aforementioned scientists' researches related to the explored problem, disclosing the essence of cooperation, its significance, hindrances and success factors of this process. Qualitative research data were analysed employing the qualitative content analysis method. Qualitative research data were validated on the basis of education expert's conclusions. The results of the qualitative study were distributed into diagnostic areas and categories.

Analysis of Social Educator's and Parents' Cooperation Possibilities

To find out parents' and educators' cooperation possibilities in various activity areas, the respondents were given statements, disclosing joint activity and activeness areas of educational process participants (pupils' self-education, achievements, behaviour, drug usage, inappropriate behaviour prevention, informal education, etc.). Analysing the research data on cooperation in various activity areas, internal reliability indicator *Cronbach's α* of the questionnaire (internal consistency measure $\alpha=0,860$) was established, enabling to state about the reliability of the questionnaire.

Table 1. Educators' Cooperation in Various Activity Areas

Cooperation in various activity areas	Age	Number (N)	Mean (M)	Standard deviation, mean (SD)	$t \leq 0,095$
Analysing self-education and achievements	up to 35	79	2,87	0,344	0,020
	from 36	97	2,58	0,714	
Solving risk group pupils' problems	up to 35	79	1,25	0,438	0,028
	from 36	97	1,30	0,460	
Analysing the situation of pupils receiving social and material support	up to 35	79	2,74	0,689	0,050
	from 36	97	2,41	0,914	
Analysing pupils' inappropriate behaviour	up to 35	79	1,34	0,477	0,028
	from 36	97	1,20	0,399	
Participation preparing preventive programmes	up to 35	79	1,59	0,494	0,294
	from 36	97	1,52	0,502	

Cooperation in various activity areas	Age	Number (N)	Mean (M)	Standard deviation, mean (SD)	$t \leq 0,095$
Problems of using psychotropic substances	up to 35	79	1,23	0,422	0,042
	from 36	97	1,11	0,319	
In informal education	up to 35	79	1,14	0,348	0,519
	from 36	97	1,18	0,382	
Organisation and participation in festive events (exhibitions, concerts, competitions, working bees, support and charity actions, etc.)	up to 35	79	1,25	0,438	0,337
	from 36	97	1,32	0,469	
Pupils' involvement in school events	up to 35	79	2,74	0,689	0,050
	from 36	97	2,41	0,914	
Organisation and conducting of school educators' and parents' meetings	up to 35	79	2,74	0,689	0,051
	from 36	97	2,41	0,914	

Educators, parents and other participants of the educational process cooperate solving various problems related to (self-) education and social support. At this stage of the survey it was sought to analyse in which areas of the educational process the respondents cooperated the most and in which areas more activeness and cooperation should be sought. Various areas of cooperation were distinguished in the study. Analysing the data, it was found that according to educators, cooperation with parents had to take place analysing children's self-education and achievements ($t \leq 0,020$), solving risk group pupils' problems, analysing inappropriate behaviour ($t \leq 0,028$), ($t \leq 0,002$), analysing the situation of pupils receiving social and material support, involving pupils in school events ($t \leq 0,050$) and organising, conducting educator's and parents' meetings ($t \leq 0,051$). The research data show that learners' achievements, behaviour, drug usage, material wellbeing (especially of children from risk families) are those problematic activity areas, successful solution of which require joint parents', children's and educators' efforts. Respondents see meaningfulness of cooperation in ensuring family wellbeing, parents' participation at the meetings ($t \leq 0,051$), pupils' involvement in school events ($t \leq 0,050$). Statistically reliable data were obtained in these activity areas.

Senior and junior age educators maintain that it is important to cooperate in the areas of project preparation, informal education, and organisation of joint events with parents, development of social abilities, school truancy, adaptation, meeting special needs or even in-service development. Although in these areas of cooperation no statistically reliable data were obtained, the results show the tendencies of possible development of these areas, encouraging versatile school-family cooperation.

The areas of educator-family cooperation that manifested themselves in the study are also provided for in the most important documents regulating social educators' activities (*Social Educator's Job Description (2001)*, *Social Educator's Qualification Requirements (2001)*, *Regulations of Provision of Social Pedagogical Support (2011)*).

The study aimed to analyse both educators' and parents' opinion about cooperation development possibilities in school communities. For this purpose a qualitative in-depth study was conducted: a semi-structured interview, involving the analysis of cooperation success cases, promoting and hindering factors. The research data were processed employing the content analysis method according to the foreseen diagnostic areas. Parents were asked to

express their opinion about the factors, which in their opinion, were promoting or enabling successful cooperation between the participants of the educational process. Parents' statements enabled to distinguish the following factors grouped into categories (see Table 2).

Table 2. Factors Promoting Cooperation (N=15)

Category	Examples of statements	Number
Personal features	*Mutual respect and understanding; *sincerity, communicativeness, goodwillness, flexibility, ability to control emotions, sensitivity to other people's experiences and needs; *sincere and open conversation with teachers, social educator, at the same time to promote the child to be sincere; *goodwillness, tolerance, understanding, carefulness; *first I think there should be trust, search and finding a unanimous opinion; *goodwillness, openness, trust, professionalism; *empathy, concern with the child, with the problems of the institution, with respect for others, respect of their opinion; *parents' and teachers' goodwillness; *understanding that close teacher-parent cooperation can solve the formed situation;	9
Ability to work together	*cooperation with a class tutor, social educator, psychologist (if necessary); *if one wants to achieve successful cooperation, mutual devotion is required (from parents, teachers, social educator, special educator), sparing both time and money, to discuss with teachers more often and share information; *close cooperation with subject teachers and parents; *operative reacting to problems, their solution.	4
Timely submission of information	*timely information, measures directed against negative factors, helping both pupils and parents; *the school provides parents with necessary information, organises open lessons, involves parents in solution of school problems. Informs parents about arisen problems immediately and not after a week; *timely information helps to solve various problems faster.	3
Positive attitude to children	*communication with subject teachers should be based on the approach that all children are gifted and teaching is adjusted to children's needs. A disorder can also be a feature of a normal child. It is important to get rid of negative attitude to exceptional pupils, respect a pupil; *the teacher should adjust to any pupils and any abilities of theirs; *teachers should understandingly accept and tolerate pupils whose abilities are worse or limited;	3

The research data show that parents treat specialists' personal features as the main factor promoting the cooperation with educators. Parents are of the opinion that cooperating with a mature personality, successful resolution of social and educational problems can be expected. Informants attribute respect, sincerity, empathy, understanding, care, goodwillness and positive attitude towards learners to the features of the educator's mature personality. Parents' opinion apparently shows that not only subject knowledge and competency are important in the interaction of participants of the educational process but also the maturity of the personality, positive self-evaluation and positive evaluation of the child (Maslow, 2006, 2011; Rogers,

2005). In the interaction “person-person” (not “person-machine”), the features and maturity of the specialist’s personality become important. Parents find it easier to address a teacher, who is frank, tolerant and not blaming, not diminishing learners’ abilities, a teacher who is good willing, envisages advantages, and respects children and parents, hoping for positive cooperation and support.

The research results demonstrate that solving social and educational problems of learners and families, parents think that it is important that the social educator should work together with other professionals (a psychologist, special educator, subject teachers, class tutors), sharing important information and informing in a timely manner. According to parents, the factor promoting positive cooperation is involvement of families in school life is the organisation of open lessons, after-school activities and meetings. Then parents will feel not only as creators of material welfare of school community, “fire-fighters” of arisen problems but also tantamount members of the community, equal participants searching for the way out, who are able to get involved into this process as tantamount members of the social education process.

Table 3. Factors Hindering Cooperation (N=15)

Category	Examples of statements	Number
Personality features	*unwillingness to communicate and hear about the arisen problem. Dissociation from everything and hope that everything will settle by itself; *indifference to the pupil’s education, wish to show off. Let the child be educated by school: my task is to feed and dress the child (parents’ opinion); *uncontrolled emotions, lack of good-willingness; *indifference, intolerance, non-understanding; *I think, one of the key factors is unwillingness to cooperate; *unwillingness to find the way of solving the problem; subject teachers and pupils should learn to tolerate new, unique and maybe sometimes strange ideas. While communicating one shouldn’t impose his/her opinion, moralise, and if necessary should sometimes explain, allowing the pupil to judge himself/herself; *unconcern, disinterest in the problems of the child, institution, disrespect of other persons;	9
Absence of parents/parents abroad	*parents are abroad; *leaving to live abroad; *parents’ frequent visits abroad; *due to work abroad children live with relatives;	4
Lack of competencies	*when parents or teachers have the only undisputed truth, in case of conflict or problem, no compromise is searched for; *lack of information, non-operative information; *sometimes there is a lack of information about arising problems, it is difficult to coordinate time with teachers; *teachers lack elementary communication and cooperation culture;	4
Teachers’ attitudes	*teachers’ attitudes (3); *negative and contradictory opinions with regard to the child;	4

The research data analysis demonstrates that the main factor hindering cooperation, according to parents, is again not the teacher’s subject-based and professional competencies but personality features. Parents envisaged that educators working in schools are educated, they are university graduates but, according to parents, they lack personality maturation. In parents’ opinion, a mature person can much more successfully help to solve social and educational problems arising in families and, on the contrary, an immature teacher does not ensure the success of the support provision process. Informants attribute indifference, lack of

good willingness and tolerance, disrespect, moralising, imposing one's opinion, unconcern, disinterest in children, unwillingness to cooperate, in many cases formation of preconception about children to lack of maturity.

In parents' opinion, pupils not always can trust educators; teachers' opinion is often categorical, one-sided, not attempting to understand children's needs. According to parents, successful cooperation is hindered by teachers' big workload and fatigue; constant attempt to adjust to changing working conditions causes permanent tension, fatigue. Parents' frequent visits and work abroad, when children are left to live with grandparents or other relatives, can also be a factor hindering cooperation.

A small share of informants indicated that, in their opinion, there are no factors hindering cooperation; they stated: "I would think that there are no such factors because all services and teachers are working for the sake of the child", "there is only a lack of wish and efforts seeking cooperation, even if you work abroad, you can find ways how to take interest: there is Skype, e-mail, etc."

Generalisations

- Analysing qualitative research data, key cooperation areas of participants of the educational process manifested themselves. Statistically reliable data show that teachers think that the cooperation with parents should take place while analysing children's self-education and achievements ($t \leq 0,020$), solving risk group pupils' problems ($t \leq 0,028$), analysing inappropriate behaviour ($t \leq 0,002$), situation of pupils receiving social and material support ($t \leq 0,050$), involving pupils in school events and organising parents' meetings. Cooperation is equally important seeking good academic achievements, appropriate behaviour, drug usage prevention, parents' and pupils' involvement in school community life.
- The analysis of the qualitative study enables to state that parents think that the most important factor promoting cooperation with educators is educators' personal features, to which parents attribute respect, sincerity, empathy, understanding, care, goodwill and positive attitude to learners. Cooperating with the mature personality, successful resolution of social and educational problems can be expected. Data analysis shows that not only subject knowledge and competency are important in the interaction of educational process participants but also the maturity of the personality, positive self-evaluation and positive child's evaluation. The social educator's work together with other professionals of the child's welfare (a psychologist, special educator, subject teachers, class tutors) and parents' involvement in school life (organisation of open lessons, after-school activities, meetings) should also be treated as an important factor promoting cooperation.
- Research data analysis demonstrates that the main factor hindering cooperation, according to parents, is not the teacher's subject-based and professional competencies but personality features. Teachers working in schools are educated, they are university graduates but according to parents, they lack personality maturation to which they attribute indifference to the problems of children and community, lack of goodwill and tolerance, disrespect, moralising, imposing one's opinion, unconcern, unwillingness to cooperate, often formation of preconception about children.

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ANALYSIS OF SOCIAL EDUCATORS' AND PARENTS' COOPERATION POSSIBILITIES: PROMOTING AND HINDERING FACTORS

Summary

Daiva Alifanovienė, Asta Vaitkevičienė, Žydra Musvicienė
Šiauliai University

The necessity of cooperation is underlined that the family should cooperate with other public institutions, in the first place, of course, *the school*, which in turn addresses many other educational institutions, voluntary services, cultural institutions for support. *Systemic-structural* perception of social education factors is particularly important as it distinguishes the functions and interrelations of participants of the educational process, acting in various educational and upbringing institutions, social support institutions, laying foundations for an integral system of actions. This integral system of factors of social education must encompass the system of various educational institutions, distinguish their interrelationships, procedural-historical collaboration of the participants of the educational process, the very learner's self-education and thus lay foundations for an integral system of factors of education and support (Vaitkevičius, 1995, Bitinas, 2000).

Cooperation is a multidimensional process, containing many interacting ecological factors: peculiarities of personalities (learners', parents', educators'), social and cultural context of the educational environment.

How do parents and educators perceive and evaluate the importance of cooperation between the participants of the educational process, their abilities and efforts? What cooperation successes and hindrances do they envisage? Namely these questions define the problematic space of the presented study.

Research aim: to analyse social educators' and parents' cooperation possibilities at school, to disclose the factors promoting and hindering this process.

Research subject: social educators' and parents' cooperation possibilities at school, factors promoting and hindering them: the dimension of educators' and parents' opinion.

Research methodology and sample. To disclose educators' and parents' opinion qualitative and quantitative research approaches were chosen. The quantitative study was attended by 176 school educators of different age and gender. The study was conducted employing a closed type questionnaire, compiled on the basis of the researches and practical experience of Kontautienė (2010), Merfeldaitė (2009a; 2009b), Vaitkevičius (1995). It was sought to disclose respondents' efforts and abilities to cooperate. Using *Likert* type scale, the respondents had to rate statements according to the intensity of the opinion ranging from *certainly yes* to *certainly no*. To check empirical data the SPSS 17 version was used, descriptive statistics (unitary, percentage frequency, mean, and standard deviation) and statistical analysis Student t criterion ($t \leq 0,095$) were employed. In order to evaluate internal reliability of the questionnaire, *Cronbach α* indicator was used (internal consistency measure – α coefficient); it is treated as sufficient when it exceeds 0,75 digital representation.

Qualitative data collection method (semi structured *interview* method) was used to find out parents' (N=15) attitude. *Interview* questions were prepared on the basis of the aforementioned scientists'

researches related to the explored problem, disclosing the essence of cooperation, its significance, hindrances and success factors of this process. Qualitative research data were analyzed employing the qualitative content analysis method. Qualitative research data were validated on the basis of education expert's conclusions. The results of the qualitative study were distributed into diagnostic areas and categories.

Analysing qualitative research data, key cooperation areas of participants of the educational process manifested themselves. Statistically reliable data show that teachers think that the cooperation with parents should take place while analyzing children's self-education and achievements ($t \leq 0,020$), solving risk group pupils' problems ($t \leq 0,028$), analyzing inappropriate behavior ($t \leq 0,002$), situation of pupils receiving social and material support ($t \leq 0,050$), involving pupils in school events and organizing parents' meetings. Cooperation is equally important seeking good academic achievements, appropriate behavior, drug usage prevention, parents' and pupils' involvement in school community life.

The analysis of the qualitative study enables to state that parents think that the most important factor promoting cooperation with educators is educators' personal features, to which parents attribute respect, sincerity, empathy, understanding, care, goodwillness and positive attitude to learners. Cooperating with the mature personality, successful resolution of social and educational problems can be expected. Data analysis shows that not only subject knowledge and competency are important in the interaction of educational process participants but also the maturity of the personality, positive self-evaluation and positive child's evaluation. The social educator's work together with other professionals of the child's welfare (a psychologist, special educator, subject teachers, class tutors) and parents' involvement in school life (organization of open lessons, after-school activities, meetings) should also be treated as an important factor promoting cooperation.

Research data analysis demonstrates that the main factor hindering cooperation, according to parents, is not the teacher's subject-based and professional competencies but personality features. Teachers working in schools are educated, they are university graduates but according to parents, they lack personality maturation to which they attribute indifference to problems of children and community, lack of good willingness and tolerance, disrespect, moralizing, imposing one's opinion, unconcern, unwillingness to cooperate, and often the formation of preconception about children

FEATURES AND FACTORS OF PROFESSIONAL SELF-FULFILLMENT OF SKILLED PEOPLE

Oleg M. Kokun

*G. S. Kostyuk Institute of Psychology
Kyiv, Ukraine*

Abstract

The objective tendencies of social development determine significantly increased attention to the problem of persons' self-fulfillment. Lack of knowledge on this phenomenon dictates the need for its theoretical justification as well as for empirical studies. This paper presents the results of a research aimed at determination of features and factors of professional self-fulfillment of skilled people of different ages and professions.

Key words: *self-fulfillment, professional self-fulfillment, professional development, factors of self-fulfillment, self-fulfillment attributes.*

Introduction

Trends in social development determine significantly increased attention to the issue of a person's innovation potential that is examined both in relation to reality and to him/herself. A question of self-fulfillment becomes increasingly important for every person who sets new goals in life and is able to achieve them, to understand and assert own individuality. However, today there are only few studies of the phenomenon of person's self-fulfillment that are aimed at the determination of its essence as a systemic phenomenon of a higher order in comparison with other similar terms (self-realization, self-actualization, self-development and others). Studies devoted to the phenomenon of professional self-fulfillment, which is one of the most important components and, for most people, is a main form of personal self-fulfillment, have not been carried out nearly at all.

Modern society offers limitless opportunities for personal development and realization in various fields of activities. But at the same time, opportunities offered by society present a person with the necessity of frequent choices, of making decisions on complex issues, challenge a person to find own place in life and find strategies for self-fulfillment. An ability to address effectively these issues is directly related to a personality, to an ability to implement own potential, to understand own desires, to a resource potential, which provides a process of self-fulfillment (Алонцева, 2011).

The researchers noted that the lack of knowledge on self-fulfillment leads to the necessity to perform experimental studies concerning relationships of methods for self-fulfillment achievement with age and personal characteristics of people, and a role of motivational, meaning, personal, biographical factors of self-fulfillment in the context of developmental age, and with the features of individual typological variants of self-fulfillment (Лукина, 2006).

It is believed that the potential of such researches is based on perpetual acceleration of the scientific and technological progress and on rapid economic, social and mental transformations which are specific to the current stage of world society development. Such studies should help to create stable life-purpose way-marks for skilled people with different professions in a changing world, a personal sense of professional self-fulfillment.

One of the leading researchers of self-fulfillment, Gwirth (2009), indicates it as a translation into the reality of the deepest persons' desires and his/her best abilities. He notes

that the searches for a decent human life are the search for self-fulfillment (Gewirth, 2009).

We defined *personal self-fulfillment* as conscious self-development of a person, during which his/her potential is revealed in various spheres of life resulting in permanent achievement of personally and socially significant effects, formation of own “living space”.

Professional self-fulfillment is one of the most important forms of life self-fulfillment, which is characterized by a high level of the manifestation of person’s professional potential in a chosen vocation, development of his/her abilities, merging into the profession, continual demand for his/her professional skills, extensive use of his/her professional experience and achievements by other specialists (Кокун, 2013).

Professional self-fulfillment can take place in two general *forms (ways)*:

- an external professional form (achieving of significant gains in various aspects of professional activities);
- an internal professional form (professional improvement aimed at enhancing of professional competence and development of professionally important qualities).

We identified *10 attributes of professional self-fulfillment*:

1. *Internal professional attributes*:

- 1.1. A need of professional improvement.
- 1.2. Existence of a project for own professional development.
- 1.3. Predominant satisfaction with own professional achievements.
- 1.4. Continuous setting of new professional goals.
- 1.5. Formation of own “life-professional space”.

2. *External professional attributes*:

- 2.1. Achieving of desired professional goals.
- 2.2. Recognition of professional accomplishments by the professional community.
- 2.3. Usage of person’s professional experience and achievements by other specialists.
- 2.4. Manifestation of personal potential and abilities through a chosen profession.
- 2.5. Demonstration of a high level of creativity in professional activities (Kokun, 2013).

In this paper, the present results of the study are aimed at determining of features and factors of professional self-fulfillment of skilled people of different ages and professions.

Object of the research: features and factors of professional self-fulfillment of skilled people of different ages and professions.

Aim of the research: to determine the features and factors of professional self-fulfillment of skilled people of different ages and professions.

Participants of the research:

The research was based on a psychological diagnostic approach *the remote professional diagnostics* (Кокун, 2010) and with usage of the diagnostic site developed by the author <http://prof-diagnost.org>. It was performed from August 2013 to January 2014. Totally, 1183 professionals participated in it. However, for processing of results, only 332 of them (113 men and 219 women) were selected, those who filled in all proposed questionnaires and techniques.

Methods of the research

The study used a questionnaire devoted for professional self-fulfillment determination, a questionnaire to determine a stage and factors of professional formation (Kokun, 2012) and five psychological diagnostic techniques:

- 1) self-efficacy scale of Schwarzer & Yerusalem,
- 2) motivation for professional work (the technique of Zamfir modified by Rean),
- 3) the test for “Communication and organizational skills determination” (KOS-2),
- 4) modification of the questionnaire on professional “burnout” and deformation – MBI and

5) the technique “Studying of satisfaction with profession and work”.

The research data were processed applying the methods of mathematic statistics: descriptive statistics (mean, std. deviation, frequencies), Spearman correlation, independent samples T-test.

Since the results of men and women obtained through the professional self-fulfillment questionnaire were not significantly different (excluding the index “Continuous setting of new professional goals”, which is significantly higher for men ($p \leq 0,01$)), the results are presented without gender differentiation.

Results and Discussion

Features of professional self-fulfillment of skilled people of different age and professions

Comparison of skilled people from different age groups on the base of all indexes of the professional self-fulfillment questionnaire revealed the following: the groups under 25 years, 26-30 years and 31-40 years of age do not have significant differences, and at the same time, they have significantly lower levels for the most of the questionnaire indexes in comparison with the groups of 41-50 years and 51 year of age and older. Therefore, to compare the levels of skilled people professional self-fulfillment and their components in terms of age, we identified two main age groups – 40 year old and younger people and 41 year old and older ones (Table 1).

Table 1. Comparison of skilled people younger than 40 years of age ($n = 265$) with people older than 40 years ($n = 67$) on the base of the indexes of the professional self-fulfillment questionnaire

No	Indexes	Age group (years)	M	t	p≤
1	General level of professional self-fulfillment	≥40	71,21	-2,45	0,05
		≤41	77,91		
2	Level of internal professional self-fulfillment	≥40	36,48	-1,95	0,05
		≤41	39,36		
3	Level of external professional self-fulfillment	≥40	34,74	-2,66	0,01
		≤41	38,55		
4	A need of professional improvement	≥40	7,52	-1,97	0,05
		≤41	8,27		
5	Existence of a project for own professional development	≥40	6,81	-,22	-
		≤41	6,91		
6	Predominant satisfaction with own professional achievements	≥40	6,15	-2,05	0,01
		≤41	7,07		
7	Continuous setting of new professional goals	≥40	8,66	-,10	-
		≤41	8,69		
8	Formation of own “life-professional space”	≥40	7,34	-3,22	0,01
		≤41	8,42		
9	Achieving of desired professional goals	≥40	7,20	-1,70	0,1
		≤41	7,76		
10	Recognition of professional accomplishments by the professional community	≥40	6,85	-2,62	0,01
		≤41	7,71		
11	Usage of person’s professional experience and achievements by other specialists	≥40	6,68	-2,28	0,05
		≤41	7,56		

No	Indexes	Age group (years)	M	t	p≤
12	Manifestation of personal potential and abilities through a chosen profession	≥40	7,79	-,54	-
		≤41	7,98		
13	Demonstration of a high level of creativity in professional activities	≥40	6,23	-3,36	0,001
		≤41	7,53		

According to the results, professional self-fulfillment after the age of 40 years increases significantly for the majority of skilled people, which can be considered as a logical phenomenon. Skilled people over 40 years of age have a significantly higher general level of professional self-fulfillment as well as the levels of its two forms (ways) – external and internal professional self-fulfillment.

As for 10 attributes of professional self-fulfillment, the skilled people over 40 years of age show significant ($p \leq 0.05 - 0.001$) increasing of 7 attributes: “A need of professional improvement”, “Predominant satisfaction with own professional achievements”, “Formation of own “life-professional space”, “Achieving of desired professional goals”, “Recognition of professional accomplishments by the professional community”, “Usage of person’s professional experience and achievements by other specialists” and “Demonstration of a high level of creativity in professional activities”. In addition, the most expressed growth is shown by two external attributes: “Formation of own “life-professional space” and “Demonstration of a high level of creativity in professional activities”.

Such attributes of professional self-fulfillment as “Existence of a project for own professional development”, “Continuous setting of new professional goals” and “Manifestation of personal potential and abilities through a chosen profession” increase only slightly with age.

The comparison of the indexes of the professional self-fulfillment questionnaire for skilled people who are at different stages of professional development is even more spectacular. It was found out that the level of professional self-fulfillment grows significantly from the stage of professional adaptation and primary professionalization to the stage of secondary professionalization and then continues to grow at the stage of professional masterhood that can also be considered as natural. These results are in accord with the results obtained by in previous studies, which became the base for the empirically grounded statement that the transition to higher stages of professional formation is related only indirectly to skilled person’s age, but directly with the real growth of their professional skills (Kokyn, 2012). We have a full right to add the increasing of professional self-fulfillment to this statement.

Regarding specific features of professional self-fulfillment of skilled people, it should be noted that the growth of external professional self-fulfillment from one professional formation stage to another is more expressed than that of internal professional one. At the secondary stage of professionalization, in the studied sample, such attributes cancel their increasing as “A need of professional improvement” and “Recognition of professional accomplishments by the professional community”. There are no changes nearly at all at different stages of professional formation for two attributes – “Existence of a project for own professional development” and “Continuous setting of new professional goals”, – which corresponds actually to the results obtained for the age aspect.

There were the interesting results obtained at comparison of selected various professional groups on the base of indexes of the professional self-fulfillment questionnaire for skilled people (Table 2)

Table 2. Comparison of various professional groups on the base of general indexes of the professional self-fulfillment questionnaire

No	Indexes	Prof. group	M	p≤
1	General level of professional self-fulfillment	A	73,37	0.1 - 0.01 B is form A, C - F
		B	65,35	
		C	74,64	
		D	77,11	
		E	75,62	
		F	74,13	
2	Level of internal professional self-fulfillment	A	37,66	0.1 - 0.01 B is form A, C - F
		B	33,52	
		C	37,81	
		D	39,89	
		E	38,10	
		F	37,88	
3	Level of external professional self-fulfillment	A	35,71	0.1 - 0.01 B is form A, C - F
		B	31,83	
		C	36,83	
		D	37,22	
		E	37,52	
		F	36,25	

Note: skilled people with professions: A – a “person-person” type (n = 133); B – a service sector (n = 57); C – a “person-sign” type (n = 54); D – creative occupation (n = 12); E – a “person-mechanisms” type (n = 33); F – working professions (n = 29);

As the results from the table above show, professionals of a service sector have significantly lower general level of professional self-fulfillment than other professional groups, as well as the levels of its two forms (external and internal professional self-fulfillment). The highest indexes of professional self-fulfillment are shown by artists, their indexes exceed the results for other professions, although this difference is not significant (there are no statistically significant levels). These results are obviously logical, because professional duties at servicing have relatively limited opportunities to professional self-fulfillment of skilled people at profession performance. While creative professions, because of their content, give the widest possibilities for self-fulfillment.

Further analysis showed that the specialists of different professions have nearly the same level for the following two of the three attributes of internal professional self-fulfillment: “Existence of a project for own professional development” and “Predominant satisfaction with own professional achievements”. The attributes like “A need of professional improvement”, “Continuous setting of new professional goals” and “Formation of own “life-professional space” have the lowest level of expression for specialists from a servicing sector, the reasons of that we have analyzed above. It should be noted that creative professionals to the greatest extent (at a significant level) are different from other professional groups because they have significantly higher such index as “Continuous setting of new professional goals”.

As for expressiveness of the attributes of external professional self-fulfillment, the specialists of different professions show nearly the same level of the attribute “Recognition of professional accomplishments by the professional community”. Professionals of a servicing sector indicated the lowest level of expression of three attributes (but they do not significantly differ from other professional groups): “Achieving of desired professional goals”, “Usage of person’s professional experience and achievements by other specialists” and “Manifestation of personal potential and abilities through a chosen profession”.

It should also be noted that there is such natural tendency as the highest level of the attribute “Demonstration of a high level of creativity in professional activities” among artists, which, although has not risen to a statistically significant level in our study, but is also quite indicative, and the lowest level of this attribute is among servicing professionals.

Factors of professional self-fulfilment of skilled people

A sufficiently large number of significant correlations were found out between the indicators of professional self-fulfilment and professional self-efficacy and motivation (Table 3).

Table 3. Correlations between professional self-fulfilment and professional self-efficacy and motivation

No	Self-fulfilment indexes	Self-efficacy	Motivation		
			Internal	External positive	External negative
1	General level of professional self-fulfilment	0,33***	0,34***	0,23***	0,06
2	Level of internal professional self-fulfilment	0,37***	0,33***	0,24***	0,02
3	Level of external professional self-fulfilment	0,25***	0,33***	0,25***	0,09
4	A need of professional improvement	0,17**	0,37***	0,32***	0,01
5	Existence of a project for own professional development	0,28***	0,11*	0,01	0,01
6	Predominant satisfaction with own professional achievements	0,49***	0,42***	0,33***	-0,01
7	Continuous setting of new professional goals	0,34***	0,04	0,05	-0,03
8	Formation of own “life-professional space”	0,24***	0,32***	0,19***	0,08
9	Achieving of desired professional goals	0,28***	0,27***	0,19***	0,05
10	Recognition of professional accomplishments by the professional community	0,18**	0,25***	0,12*	0,02
11	Usage of person’s professional experience and achievements by other specialists	0,16**	0,15**	0,06	0,05
12	Manifestation of personal potential and abilities through a chosen profession	0,17**	0,33***	0,22***	0,26***
13	Demonstration of a high level of creativity in professional activities	0,17**	0,33***	0,21***	0,00

Notes: *** – correlation is significant at the level of $p \leq 0.001$; ** – $p \leq 0.01$; * – $p \leq 0.05$.

The level of professional self-efficacy according to the scale of R. Schwarzer and M. Yerusalem ($p \leq 0.01 - 0.001$) correlates at a significant level with all indexes of professional self-fulfilment (with $r = 0.16 - 0.49$). To the greatest extent self-efficacy is related with “Predominant satisfaction with own professional achievements” ($r = 0.49$), with the level of internal professional self-fulfilment ($r = 0.37$), “Continuous setting of new professional goals” ($r = 0.34$) and the general level of professional self-fulfilment of skilled people ($r = 0.33$).

Nearly all indexes of professional self-fulfilment (except the only one – “Continuous setting of new professional goals”) also correlate significantly ($p \leq 0.05 - 0.001$) with internal professional motivation ($r = 0.11 - 0.42$). Here, the strongest relations also are registered with “Predominant satisfaction with own professional achievements” ($r = 0.42$). Relationship of this type of motivation can also be noted with the general level of professional self-fulfilment of skilled people ($r = 0.34$), with the level of internal ($r = 0,33$) and external professional self-fulfilment ($r = 0.33$), “A need of professional improvement” ($r = 0.37$), “Formation of own “life-professional space” ($r = 0.32$); “Manifestation of personal potential and abilities through a chosen profession” ($r = 0.33$); “Demonstration of a high level of creativity in professional activities” ($r = 0.33$).

External positive motivation only at a slightly lower level in comparison with the internal one correlates with the indexes of professional self-fulfillment: it has significant correlations ($p \leq 0.05 - 0.001$) with 10 of 13 of these indexes ($r = 0.12 - 0.33$). The closest relationship is with “A need of professional improvement” ($r = 0.32$). However, external negative motivation is almost unrelated to professional self-fulfillment, it has significant correlation only with one of its indexes – “Manifestation of personal potential and abilities through a chosen profession” ($p \leq 0.001$; $r = 0.26$).

Thus, according to the obtained results, an essential prerequisite for professional self-fulfillment of skilled people is the existence of a high level of professional self-efficacy, internal and external positive professional motivation.

The Table 4 shows the correlations of indexes of professional self-fulfillment with the indicators of additional psychological diagnostic techniques that were used in our study.

Table 4. Correlation between professional self-fulfillment with the indicators of the test for “Communication and organizational skills determination” (KOS-2) (A, B); the technique “Studying of satisfaction with profession and work” (C) and Modification of the questionnaire on professional “burnout” and deformation – MBI (D-G)

No	Indexes of self-fulfillment	Indicators of psychological diagnostic techniques						
		A	B	C	D	E	F	G
1	General level of professional self-fulfillment	0,57	0,61	0,65	-0,60	-0,49	-0,49	-0,64
2	Level of internal professional self-fulfillment	0,59	0,63	0,59	-0,50	-0,42	-0,35	-0,58
3	Level of external professional self-fulfillment	0,50	0,53	0,58	-0,57	-0,45	-0,51	-0,57
4	A need of professional improvement	0,47	0,50	0,27	-0,45	-0,39	-0,38	-0,42
5	Existence of a project for own professional development	0,39	0,38	0,33	-0,43	-0,40	-0,24	-0,55
6	Predominant satisfaction with own professional achievements	0,44	0,47	0,76	-0,43	-0,39	-0,38	-0,50
7	Continuous setting of new professional goals	0,53	0,63	0,1*	-0,36	-0,30	-0,28	-0,34
8	Formation of own “life-professional space”	0,52	0,43	0,48	-0,52	-0,45	-0,56	-0,57
9	Achieving of desired professional goals	0,32	0,38	0,44	-0,30	-0,24	-0,28	-0,35
10	Recognition of professional accomplishments by the professional community	0,30	0,33	0,43	-0,27	-,13**	-0,29	-0,43
11	Usage of person’s professional experience and achievements by other specialists	0,33	0,41	0,26	-0,33	-,16***	-0,34	-0,48
12	Manifestation of personal potential and abilities through a chosen profession	0,50	0,56	0,53	-0,51	-0,47	-0,44	-0,43
13	Demonstration of a high level of creativity in professional activities	0,58	0,51	0,51	-0,81	-0,78	-0,68	-0,62

Notes: 1) Indicators of psychological diagnostic techniques: A – communication skills; B – organizational skills; C – satisfaction with own profession and work; D – total indicator of professional “burnout” and deformation; E – emotional exhaustion; F – depersonalization; G – reduction of personal accomplishments;

2) all correlation coefficients in the Table are significant at the level of $p \leq 0.001$, except the marked ones: * – $p \leq 0.1$, ** – $p \leq 0.05$, *** – $p \leq 0.01$.

The presented correlation analysis show that all the indicators of psychological diagnostic techniques, which were used in this study as additional ones, are significantly related to the indexes of professional self-fulfillment; nearly all of them correlate at the level of $p \leq 0.001$. At the same time, both positive and negative directions of relations are present.

Indicators of communication and organizational skills correlate with the general indexes of professional self-fulfillment with $r = 0.5-0.61$, and with the indexes of different attributes of external and internal professional self-fulfillment with $r = 0.3 - 0.63$. Even to a greater extent the satisfaction with profession and work correlates with the professional self-fulfillment indexes. Relations with the general indexes are within $r = 0.58-0.65$. Minimal correlation was obtained for the attribute “Continuous setting of new professional goals” ($r = 0.1$). The highest correlation was shown for “Predominant satisfaction with own professional achievements” ($r = 0.76$), which is quite natural, given close meaning of these indexes.

Thus, on the base of the above results, the important prerequisites for achieving of professional self-fulfillment by skilled people should also include a fairly high level of the development of communication and organizational skills as well as a high degree of satisfaction with profession.

Unlike previous techniques, all the indicators of the Modification of the questionnaire on professional “burnout” and deformation – MBI have significant negative correlations with the indexes of professional self-fulfillment, which allows us to attribute them as an extremely unfavorable factor of professional self-fulfillment of skilled people. Such components of occupational “burnout” and deformation as emotional exhaustion, depersonalization, reduction of personal achievements, as well as their total value correlate with the general indexes of professional self-fulfillment with $r = -0.42 - 0.64$. The most significant negative impact of these adverse features for every professional occurs for the attributes of professional self-fulfillment such as “Demonstration of a high level of creativity in professional activities” and “Manifestation of personal potential and abilities through a chosen profession”.

Very indicative results were also obtained from correlation analysis of professional self-fulfillment with the indicators of the questionnaire for the determination of a stage and factors of professional formation (Table 5, 6). We included the indicators of the questionnaire that correlate the most strongly with professional self-fulfillment of skilled people into these tables.

Table 5. Correlations between the indexes of professional self-fulfillment and the indicators of the part of the questionnaire aimed to determine a *stage* of professional formation of specialists

No	Indexes of professional self-fulfillment	Indicators of the part of the questionnaire aimed to determine a stage of professional formation of specialists				
		A	B	C	D	E
1	General level of professional self-fulfillment	0,35***	0,25***	0,43***	0,59***	0,45***
2	Level of internal professional self-fulfillment	0,47***	0,38***	0,31***	0,49***	0,37***
3	Level of external professional self-fulfillment	0,24***	0,17**	0,47***	0,63***	0,49***
4	A need of professional improvement	0,13*	0,03	0,03	0,18**	0,24***
5	Existence of a project for own professional development	0,29***	0,23***	-0,05	0,19***	0,12*
6	Predominant satisfaction with own professional achievements	0,25***	0,51***	0,58***	0,47***	0,32***
7	Continuous setting of new professional goals	0,16**	-0,03	-0,09	0,03	-0,01
8	Formation of own “life-professional space”	0,57***	0,36***	0,50***	0,56***	0,50***
9	Achieving of desired professional goals	0,50***	0,30***	0,32***	0,45***	0,39***

No	Indexes of professional self-fulfillment	Indicators of the part of the questionnaire aimed to determine a stage of professional formation of specialists				
		A	B	C	D	E
10	Recognition of professional accomplishments by the professional community	0,27***	0,10	0,46***	0,48***	0,39***
11	Usage of person's professional experience and achievements by other specialists	-0,04	-0,07	0,29***	0,58***	0,54***
12	Manifestation of personal potential and abilities through a chosen profession	0,30***	0,11	0,40***	0,46***	0,36***
13	Demonstration of a high level of creativity in professional activities	0,23***	0,16**	0,41***	0,56***	0,34***

Notes: 1) indicators of the questionnaire: A – formation of a professional position; B – formation of an individual style of professional activities; C – professional mobility, flexibility of activity styles; D – level of creativity at professional work; E – level of self-construction of professional work and career; 2) *** – correlation is significant at the level $p \leq 0.001$; ** – $p \leq 0.01$; * – $p \leq 0.05$.

Five indicators of the part of the questionnaire aimed to determine a *stage* of professional formation of specialists (formation of a professional positions and an individual style of professional activities, professional mobility, flexibility of activity styles, levels of creativity and self-construction of professional work and career) have correlations with the general indexes of professional self-fulfillment with $r = 0.17 - 0.63$. This allows us to consider them as an important prerequisite for professional self-fulfillment, and, to some extent, basing on its content, as its manifestation.

These indicators have the strongest relations with the following attributes of professional self-fulfillment: “Predominant satisfaction with own professional achievements”, “Formation of own “life-professional space”, “Achieving of desired professional goals” and “Demonstration of a high level of creativity in professional activities”. Relationship was the weakest with the indexes “Continuous setting of new professional goals” and “A need for professional improvement”.

Table 6. Correlations between the indexes of professional self-fulfillment and the indicators aimed to determine factors of professional formation of specialists

No	Indexes of professional self-fulfillment	Indicators of the part of the questionnaire aimed to determine the factors of professional formation of specialists						
		A	B	C	D	E	F	G
1	General level of professional self-fulfillment	0,77***	0,62***	0,57***	0,68***	0,32***	0,45***	0,52***
2	Level of internal professional self-fulfillment	0,78***	0,59***	0,44***	0,59***	0,30***	0,31***	0,58***
3	Level of external professional self-fulfillment	0,69***	0,58***	0,60***	0,67***	0,36***	0,46***	0,46***
4	A need of professional improvement	0,24***	0,11	0,19***	-0,10	0,54***	0,01	0,67***
5	Existence of a project for own professional development	0,38***	0,32***	0,23***	0,16**	0,22***	-0,04	0,53***
6	Predominant satisfaction with own professional achievements	0,71***	0,78***	0,67***	0,85***	0,01	0,31***	0,18**
7	Continuous setting of new professional goals	0,33***	0,20***	0,22***	0,17**	0,01	0,32***	0,55***

No	Indexes of professional self-fulfillment	Indicators of the part of the questionnaire aimed to determine the factors of professional formation of specialists						
		A	B	C	D	E	F	G
8	Formation of own "life-professional space"	0,85***	0,48***	0,32***	0,65***	0,38***	0,30***	0,37***
9	Achieving of desired professional goals	0,47***	0,44***	0,27***	0,47***	0,01	0,30***	-0,03
10	Recognition of professional accomplishments by the professional community	0,38***	0,40***	0,41***	0,37***	0,17**	0,24***	0,12*
11	Usage of person's professional experience and achievements by other specialists	0,33***	0,30***	0,49***	0,31***	0,46***	0,18**	0,48***
12	Manifestation of personal potential and abilities through a chosen profession	0,70***	0,62***	0,57***	0,74***	0,30***	0,62***	0,31***
13	Demonstration of a high level of creativity in professional activities	0,68***	0,55***	0,52***	0,63***	0,30***	0,50***	0,50***

Notes: 1) indicators of the questionnaire: A – satisfaction with content of professional activities; B – satisfaction with salary; C – career satisfaction; D – satisfaction with social status; E – intensity of efforts that improve a professional level; F – positive relationships with superiors; G – health status;
2) *** – correlation is significant at the level $p \leq 0,001$; ** – $p \leq 0,01$; * – $p \leq 0,05$.

Seven indicators of the part of the questionnaire aimed to determine *factors* of professional formation of specialists (satisfaction with content of professional activities, satisfaction with salary, career satisfaction, satisfaction with social status, intensity of efforts that improve a professional level, positive relationships with superiors, health status) have even higher correlations with the general indexes of professional self-fulfillment in comparison with the above case ($r = 0,3 - 0,78$). Almost all of them correlate positively and significantly with all features of professional self-fulfillment. Like at the previous case, these indicators should be regarded at more or less degree as, on the one hand, an important prerequisite for professional self-fulfillment, and on the other hand as its consequences to some extent. For example, logical consequences of successful professional self-fulfillment of skilled people are professional growth, career promotions, salary increasing, which respectively increase the satisfaction with the content of professional activities, salary, a career, a social status and relationships with superiors. Although, later it acts as obvious prerequisite of professional self-fulfillment.

The influence of the factors such as the intensity of the efforts that improve a professional level and health status is almost one-way: professionals who pay more attention to their own professional development and have better health, naturally, have more opportunities for professional self-fulfillment.

Conclusions

A level of professional self-fulfillment of the vast majority of skilled people grows significantly after 40 years of age. These specialists have a significantly higher general level of professional self-fulfillment, and the levels of its two forms – external and internal professional self-fulfillment ($p \leq 0,05 - 0,01$). Of 10 attributes of professional self-fulfillment of skilled people over 40 years of age, 7 attributes become significantly more expressed: "A need for professional improvement", "Predominant satisfaction with own professional achievements", "Achieving of desired professional goals", "Recognition of professional accomplishments by the professional community", "Usage of person's professional experience and achievements

by other specialists”, “Formation of own “life-professional space”, and “Demonstration of a high level of creativity in professional activities” ($p \leq 0.05 - 0.001$). Moreover, the levels of the last two features have increased in the most expressed way.

The level of professional self-fulfillment of skilled people has significantly increased from the stages of professional adaptation and primary professionalization to the stage of secondary professionalization and then continues to grow at the stage of professional masterhood. The increase of external professional self-fulfillment from one stage of professional formation to another is more pronounced than that of internal one.

Specialists of a servicing sector have a significantly lower level of professional self-fulfillment than that of other professional groups (specialists with occupations of a “person-person” type, of a “person-sign” type, of a “person-mechanism” type, artists and workers), as well as the levels of its two forms – external and internal professional self-fulfillment. The highest indexes of professional self-fulfillment were shown by artists, although exceeding of the indexes in comparison with other professions is not significant (not at statistically significant levels). These results are obviously logical, because professional duties at servicing have relatively limited opportunities to professional self-fulfillment of a skilled person at their own professions. While creative professions, because of their content, give the widest possibilities for self-fulfillment. Therefore, in our opinion, skilled people of these professions are different from other professional groups to the greatest extent by the attribute “Continuous setting of new professional goals” ($p \leq 0.05 - 0.001$).

According to the obtained results, the essential prerequisites for professional self-fulfillment of skilled people are high levels of professional self-efficacy, internal and external professional positive motivation, rather high level of communication and organizational skills, a high degree of satisfaction with own profession.

The formation of a professional position and an individual style of professional activities, professional mobility, flexibility of activity style, levels of creative implementation and self-construction of professional work and career are important prerequisites for professional self-fulfillment and, to some extent, its manifestation. Professional self-fulfillment is related enough closely with the indicator such as satisfaction with the content of professional activities, salary, career and social status, intensity of the efforts to improve a professional level, positive relationships with superiors and good health.

The indicators of professional “burnout” and deformation, such as emotional exhaustion, depersonalization and personal accomplishment reduction, became very unfavorable for professional self-fulfillment of skilled people.

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FEATURES AND FACTORS OF PROFESSIONAL SELF-FULFILLMENT OF SKILLED PEOPLE

Summary

Oleg M. Kokun

G. S. Kostiuk Institute of psychology, Kyiv, Ukraine

Modern society offers limitless opportunities for personal development and realization in various fields of activities. However, at the same time the opportunities offered by society present a person with the necessity of frequent choices, of making decisions on complex issues, challenge a person to find own place in life and find strategies for self-fulfillment. According to the study (Кокун, 2013) *personal self-fulfillment* was defined as conscious self-development of a person, during which his/her potential is revealed in various spheres of life resulting in permanent achievement of personally and socially significant effects, formation of own “living space”.

Professional self-fulfillment is one of the most important forms of life self-fulfillment, which is characterized by a high level of manifestation of person's professional potential in a chosen vocation, development of his/her abilities, merging into the profession, continual demand for his/her professional skills, extensive use of his/her professional experience and achievements by other specialists (Кокун, 2013).

Object of the research: features and factors of professional self-fulfillment of skilled people of different age and professions. **Aim of the research:** to determine the features and factors of professional self-fulfillment of skilled people of different age and professions. **Participants of the research:** the research was based on a psychological diagnostic approach *the remote professional diagnostics* (Кокун, 2010) and with the usage of the diagnostic site developed by the author <http://prof-diagnost.org>. It was performed from August 2013 to January 2014. Totally, 1183 professionals participated in it. However, for the processing of results, only 332 of them (113 men and 219 women) were selected, those who filled in all proposed questionnaires and techniques.

Methods of the research. The study used a questionnaire devoted for professional self-fulfillment determination, a questionnaire to determine a stage and factors of professional formation (Kokun, 2012) and five psychological diagnostic techniques:

- 1) self-efficacy scale of Schwarzer & Yerusalem,
- 2) motivation for professional work (the technique of Zamfir modified by Rean),
- 3) the test for “Communication and organizational skills determination” (KOS-2),
- 4) modification of the questionnaire on professional “burnout” and deformation – MBI and
- 5) the technique “Studying of satisfaction with profession and work”.

Conclusions of the research. A level of professional self-fulfillment of the vast majority of skilled people grows significantly after 40 years of age. These specialists have a significantly higher general level of professional self-fulfillment, and the levels of its two forms – external and internal professional self-fulfillment ($p \leq 0.05 - 0.01$). Of 10 attributes of professional self-fulfillment of skilled people over 40 years of age, 7 attributes become significantly more expressed: “A need for professional improvement”, “Predominant satisfaction with own professional achievements”, “Achieving of desired professional goals”, “Recognition of professional accomplishments by the professional community”, “Usage of person's professional experience and achievements by other specialists”, “Formation of own “life-professional space”, and “Demonstration of a high level of creativity in professional activities” ($p \leq 0.05 - 0.001$). Moreover, the levels of the last two features have increased in the most expressed way.

The level of professional self-fulfillment of skilled people has significantly increased from the stages of professional adaptation and primary professionalization to the stage of secondary professionalization and then continues to grow at the stage of professional masterhood. The increase of external professional self-fulfillment from one stage of professional formation to another is more pronounced than that of internal one.

Specialists of a servicing sector have a significantly lower level of professional self-fulfillment than that of other professional groups (specialists with occupations of a “person-person” type, of a “person-sign” type, of a “person-mechanism” type, artists and workers), as well as the levels of its two forms – external and internal professional self-fulfillment. The highest indexes of professional self-fulfillment were shown by artists, although exceeding of the indexes in comparison with other

professions is not significant (not at statistically significant levels). These results are obviously logical, because professional duties at servicing have relatively limited opportunities to professional self-fulfillment of a skilled person at their own professions. While creative professions, because of their content, give the widest possibilities for self-fulfillment. Therefore, in our opinion, skilled people of these professions are different from other professional groups to the greatest extent by the attribute “Continuous setting of new professional goals” ($p \leq 0.05 - 0.001$).

According to the obtained results, the essential prerequisites for professional self-fulfillment of skilled people are high levels of professional self-efficacy, internal and external professional positive motivation, rather high level of communication and organizational skills, a high degree of satisfaction with own profession.

The formation of a professional position and an individual style of professional activities, professional mobility, flexibility of activity style, levels of creative implementation and self-construction of professional work and career are important prerequisites for professional self-fulfillment and, to some extent, its manifestation. Professional self-fulfillment is related enough closely with the indicator such as the satisfaction with the content of professional activities, salary, career and social status, intensity of the efforts to improve a professional level, positive relationships with superiors and good health.

The indicators of professional “burnout” and deformation, such as emotional exhaustion, depersonalization and personal accomplishment reduction, became very unfavorable for professional self-fulfillment of skilled people.

PARADOXICALITY OF THE ACTIVITY OF INSTITUTIONAL EDUCATION INSTITUTIONS: PRINCIPLES AND OPPORTUNITIES

*Adolfas Juodraitis, Odeta Šapelytė,
Šiauliai University, Lithuania*

Abstract

The article presents the problem of paradoxicality of the activity of juvenile institutional education (i.e., socialisation centres operating in Lithuania). Several important variables have not been considered in the interaction of the activities of the socialisation centre, simultaneously of pedagogical and other staff and learners, their families/foster parents, and this resulted in inconsistency of the implementation of the complex resocialisation process. The article calls for the scientific discussion, actualising essential principles of resocialisation observed in socialisation centres, grounded on empirical data of children's subjective experience (N= 97) and assessment of specialists of the child socialisation centre (N=94).

Key words: *institutional education, child socialisation centre, juvenile resocialisation, principles and possibilities of activity*

Introduction

Juvenile delinquency is to be treated as a very big social problem both in Lithuania and other countries. Statistical data of different countries demonstrate that proportionally persons in their late adolescence years and early youth (up to 25 years) make up the biggest share of delinquent persons and later this proportion is reducing (e.g., in Lithuania, in 1990-2009, young people aged 14-24 years committed 41,6 per cent - 48,3 per cent of criminal acts of the total number of crimes) (Žukauskaitė, 2012). According to the data of the Department of Statistics of Lithuania, from 2009 to 2013, the number of juvenile delinquency and crimes was reducing² (from 4 023 down to 3 126). It is important to note that the reducing number does not mean that the scope of the problem is reducing. It should be worth considering such social demographic variables as the decrease of birth rate, emigration, and others. Therefore, juvenile delinquency, inappropriate/deviant behaviour and these juveniles' institutional education/resocialisation remain a burning and worrying socio-economical problem in our society.

Institutional education is perceived as a constituent of social systems orientated towards the solution of personally and socially important problems. Problems that have been insufficiently considered or incompetently solved by corresponding social systems (family, the closest social setting, school, systems organising leisure, etc.), determining tendencies of the manifestation of socially irresponsible behaviour and the deficit of success of socialisation, are delegated for correction to the specific social education institution – the child socialisation centre (further referred to as the CSC). According to the Law on Minimal and Average Care of the Child (2010) of the Republic of Lithuania, the CSC is defined as state general education school implementing the measure of the child's average supervision. The socialisation centre is obliged to perform a number of functions (educational, developmental, the function of

2 <http://db1.stat.gov.lt/statbank/selectvarval/saveselections.asp?MainTable=M3170202&PLanguage=0&TableStyle=&Buttons=&PXSIId=12906&IQY=&TC=&ST=ST&rvar0=&rvar1=&rvar2=&rvar3=&rvar4=&rvar5=&rvar6=&rvar7=&rvar8=&rvar9=&rvar10=&rvar11=&rvar12=&rvar13=&rvar14=>

emotional stabilisation and change of conduct, of teaching social skills and socially significant activity, etc.), which directly affect the possibilities of ensuring the juvenile's successful adaptation and social processes. The purpose of the CSC is to *ensure suitable education of the child accommodated in the CSC, qualified educational support provided for him/her and other services, which would help to seek positive changes in the child's conduct, develop value approaches and social skills helping to become an honest, independent and responsible person and which would prepare him/her for independent life in the society* (The Law on Minimal and Average Care of the Child³ (2010).

Managing the quality shift of adaptation and socialisation processes, several important variables have not been considered in the purposefully organised interaction of the pedagogical and other staff of the socialisation centre and learners, resulting in inconsistency of implementing tasks of the complex resocialisation process.

- By its quantity and quality parameters the socialisation process is a constant and continuous process, which is implemented synergetically, when social environment and the juvenile functioning in it purposefully seek personally and socially significant goals. It is obvious that in the process (stages can differ insignificantly but basically these were critical stages of development) of psychosocial development (on the other hand, cognitive development too) the bigger share of learners of the socialisation centre encountered a number of problems and the socialisation process or its separate structural segments were transformed. Studies have proved that such changes result in stating about the violation of integration of *the Self* system of the personality, which is related to uneven development or considerable deviations of 1) images of personal features and attributes, 2) self-esteem, 3) perception of self-efficacy, 4) meta-cognitive awareness the self-control strategy and 5) personal conduct evaluation standards.
- The said unevenness of juvenile psychosocial development transforms the development of the social competency, first of all bearing in mind social conduct, which consists of the complex system of social mastering, social motives, social skills and abilities, habits and knowledge. It is stated that the social competency is a constituent of learned and inherited social conduct (Zcolnai, 2002), it is closely related to the dynamics of the formation of social relationships and their quality. It is obvious that scientists naturally focus on the peculiarities of the relationships with peers as a determinant of social competency development, considering the importance of this formation and its links with self-efficacy, self-respect and other personality components, which together with other factors determine the specificity of adaptation and socialisation processes. This way it is noted that the person's ability to form interpersonal relationships is treated as an important factor for holistic personality development and successful psychosocial adaptation (Ullrich & De Muynck, 1998; Hinsch & Pfingsten, 1988).

It is stated that the quality and stability of peer relationships affect adaptation at school (Berndt & Hawkins, 1999), peer acceptance is closely related to their social and academic competency (Asher & Hymel, 1981; Hartup, 1983). It is also noted that disordered relationships in the peer group determine the emergence of various forms of social dysadaptation (Valickas, 1997; Wentzel, 1991; Žukauskienė, 2012 et al.). Assessing the influence of the peer group on the adolescent's social competency development, it was noticed that the more time is spent with peers and friends, the more there are possibilities to try out various social roles and master appropriate social conduct models (Fine, 1981, qtd. in Vyšniauskytė-Rimkienė, 2006).

3 LR Vaiko minimalios ir vidutinės priežiūros įstatymas (2010). *Valstybės žinios*, 2010-12-31, Nr. 157-7969.

The problem is that the development of social relationships of the learner in the socialisation centre and possibilities of mastering socially significant roles are restricted by numerous disruptive factors, first distinguishing early age of the majority of them when they get into the care institution and specificity of development of relationships, which are based on vertical principles (staff of the institution – senior foster-children – learner). It is understandable that a similar scheme also operates in the system of family relationships (parents – senior children – child) but, irrespective of family disposition peculiarities, in the family there are significantly more elements of horizontal interacting (cooperation, attachment, support, etc.) like more possibilities to master different social roles. Not denying competition in the family, it is necessary to consider the fact that experience of institutional education determines lesser possibility of choosing roles (learner) and bigger manifestation of competition (staff – learners, senior and junior learners, peers), when friends' acknowledgment and status in the group are particularly important. Seeking acknowledgement, suitability or unsuitability of conduct model in a concrete social field is kind of checked; on the other hand, this is the way how juveniles master certain rules related to conduct regulation, including conduct norms created by the very juveniles, which first of all mean their independence from adults (Zsolnai, 2002). The totality of interacting factors (observance of rules and norms, social roles, communication abilities, value scale peculiarities, social conduct, etc.) correspondingly determines the status of the juvenile in the group (peer respect and functioning of self-efficacy) and the perspective of his/her adaptation and socialisation. Data of various studies confirm the existing positive link between the acquired status and psychosocial adaptation (Rosenblum & Olson, 1997; Luthar, 1995 et al.). The problem is that, as stated in the analyses of conduct changes of those who do not receive effective peer support (e.g., due to academic or sport achievements, personality features, etc.), such juveniles are caught in a closed circle, when, seeking acknowledgement, attention and respect, they often choose negative conduct manifestation ways (in principal, this is regular, considering the influence of the closest setting) and this way interpersonal relationships in the group and possibilities of reaching the wished status are still more complicated (Combs & Slaby, 1977).

Scientific and practical relevance of the research presupposes the following **problem questions**: *How can the mission of child socialisation centres in the process of implementing juvenile resocialisation be described? What are possible contradictions in the context of aims raised by institutionalised resocialisation and actually implemented principles?* **Research subject**: paradoxicality of activities of socialisation centres, implementing institutional education. The research aimed to **disclose principles and tendencies of organisation of juvenile resocialisation processes in socialisation centres (in the context of paradoxicality) (from the standpoint of specialists of the CSC (N=94) and children (N=97)).**

To achieve the research aim, qualitative and quantitative research approaches were chosen, seeking to reveal the specificity of activities of the CSCs in the context of paradoxicality of implemented functions and resocialisation processes as broadly as possible. In order to implement this, it is sought to integrate different methods of research data collection and processing (i.e., written questionnaire, narrative method and content analysis method), involving different participants of the resocialisation process (specialists of the CSC (N=94) (educators, administration) and learners (N = 97). Processing quantitative research data, **descriptive analysis** was applied, and, seeking to disclose the assessments of different participants of the resocialisation process, **non-parametric methods** (Kruskal-Wallis method) were employed.

Paradoxicality of Institutional Education: Interpretation of Research Data and Discussion

Institutional education in Lithuania is implemented ensuring the performance of the average supervision measure in six socialisation centres. The order of imposing the child's

average supervision measure is regulated by: the Law on Minimal and Average Care of the Child (2011), also the Description of the Operational Model of the Children's Socialisation Centre⁴ (2011) and the Description of the Order of Selecting the Children's Socialisation Centre⁵ (2011). Work of socialisation centres operating in Lithuania with delinquent conduct juveniles, implementing the average supervision measure, is very complicated both due to specificity, type of the educational activity and due to responsibility, falling on the whole staff, and expectations of the society, (Bakutytė, Geležinienė, Gumuliauskienė, Juodraitis, Jurevičienė, & Šapelytė, 2013), which are to be related to successful resocialisation of the juvenile. However, it is noticed that traditional juvenile rehabilitation methods are ineffective, what is more, on the contrary, the latter methods can even more affect the personality and increase delinquency (Tarolla, Wagner, Rabinowitz, & Tubman, 2002). Therefore, recently many efforts were focused on the actualisation and implementation of successful principles of juvenile resocialisation. It is noticed that in today's context considerable attention is being paid to such strategies applied in the juvenile resocialisation process as development of social-cognitive, parenthood skills, cognitive-behavioural therapy, systemic family therapy, individual/ group consulting, probation programmes, creation of therapeutic communities, mentoring programmes, etc., seeking to isolate the adolescent from the society as little as possible, instead focusing on his/her resocialisation in the context of his/her closest social setting. Morrison & Ramsay (2010) distinguish the following principles to be pursued in the resocialisation process:

- Implementation of validated risk assessment system,
- The principle of actualisation of needs (support goals are related to clients' needs),
- The principle of responsibility (cognitive therapy methods are perceived as methods encouraging choice if they are focused on the client's intellectual and emotional abilities),
- Involvement of management (i.e. management must take interest and know about relationships of staff and what structural abilities they have),
- Maintaining of relationships and structural abilities using usual mechanisms,
- Implementation of supportive type of management system,
- Implementation of maximal occupation,
- Formation of positive relationships between staff and juveniles (staff-juvenile relationships must be based on interpersonal sensibility and constructivism so that it will be possible to improve internal motivation, mindedness to change the existing conduct), etc.

However, suitable juvenile resocialisation processes can be ensured relating it to critical analysis of the existing situation, seeking to identify advantages, drawbacks of the system and contradictions of the implemented activity.

Analysing empirical research data, the assessment palette, submitted by both staff of the CSC and children, enabled to actualise several essential controversies of the principles of implementing institutional education and resocialisation processes, ranging from preventive-warning/intervention-penal principle to integration-socialisation/isolation-resocialisation principle.

Preventive-Warning / Intervention-Penal Principle. The problem question is to be related to *the degree to which the juvenile is involved in the system of warning-preventive impact due to possible stricter sanctions; i.e., application of intervention-penal measures and all possible consequences of applying these measures?*

Even subjectively assessing a number of cases of learners' getting into (being directed to) the average supervision institution, there are certain doubts regarding the scope of work and

4 Vaikų socializacijos centro veiklos modelio aprašas (2011)

5 Vaikų socializacijos centro parinkimo tvarkos aprašas (2011)

responsibility for performance of necessary functions of responsible services because juveniles' versions of "life stories" reveal obvious similarities. This way preconditions are formulated that in separate cases 1) children were not familiarised with all circumstances of directing them to children's care homes and, feeling being deceived, they start revenging on subjects of social setting; 2) pedagogical staff and corresponding services choose a "comfortable" way of solving the problem, modelling the fate of children raising in risk families, most often as usual replacing preventive measures with intervention. Acknowledging that such facts are quite rare and thinking about principal changes in the child's life quality, it is also necessary to consider his/her psychological readiness (in principle, doubtful possibilities) to be separated from the family and emotional and behavioural reactions, which can be provoked by such situation. This is confirmed by several learners' described stories: *"the social worker says: 'Let's go to children's care home only for several days, until mother sobers... it is painful to see my mother drinking, this is how I got into the children's home... after one year I started longing for my mother; fleeing from children's home and at the same time truanting... I met 'good' friends, started stealing, drinking, smoking and, what is the worst, sniffing gas, petrol...'".* Nearly identical story of another learner: *"... when I was 10, child rights saw my mother drunk, then they offered me temporary children's home and said that I would stay there not for long. I agreed, then I started disliking the place and I started fleeing from there, after that I met those who taught me to steal..."*. Also the case of another learner: *"... I lived with the family for 10 years and then I got into the children's care home and I felt that I wasn't necessary for anyone ... and I started smoking, drinking in the care home and fleeing from the care home ...every day I ran home to my mother..."*

The survey results of the staff of the CSC (N=94) demonstrate that formally defined (in legal acts clearly regulated) psychosocial factors of implementing the child's average supervision measure (e.g., the child's familiarisation with internal conduct rules, with physical environment, observation of the child's situation after he/she leaves, etc.) have evidently become an integral part of organisational culture of socialisation centres. However, it is worth mentioning that indefinite and less measurable psychosocial factors in normative acts, which are more to be related to the very process of resocialisation and to support for learners, are less developed (this is reflected in respondents' assessments, when they only partially agree that *the average supervision measure is effective for many children* in the statement *the possibility that children will change during the allocated time in the socialisation centre is very small*). According to respondents' assessment, the said areas require changes most (see Table 1).

Table 1. Psychosocial and Educational Factors of Implementation of the Child's Average Supervision Measure: *Specialists' Assessment of the Current Situation and the Need for Changes* (scale from 1 to 5)⁶ (N=94)

Variables	Assessment of the existing situation		Manifestation of the need for changes	
	M	SD	M	SD
The child is familiarised with the implementation of the average supervision measure in the socialisation centre	4,24	0,68	3,10	1,12
Children most often get into the socialisation centre reasonably	4,05	0,66	3,33	0,99

⁶ Scale from 1 to 5 when: 1 – fully disagree, 2 – disagree, 3 – partially agree, 4 – agree, 5 – fully agree

Variables	Assessment of the existing situation		Manifestation of the need for changes	
	M	SD	M	SD
Specialists of the socialisation centre prepare recommendations for schools about children leaving the centre	3,99	0,86	3,36	1,13
Information about children who have left the centre is collected in the socialisation centre	3,92	0,93	3,42	1,1
Children are well informed and know that they can be taken to socialisation centres due to inappropriate conduct	3,58	0,9	3,61	1,01
The imposed average supervision measure is effective for many children	3,44	0,8	3,66	0,86
The possibility that children will change during the allocated time in the socialisation centre is very small	3,00	0,87	3,60	0,86
There are children in the socialisation centre, to whom a milder measure had to be imposed	2,92	0,95	3,43	0,98

During the interview the majority of informants underlined that the resocialisation process in socialisation centres was successful only for a very small share of children. In principal, intervention practice, resulting in the application of the penal model, when the juvenile, often a preteen, is separated from the family and directed to institutional care (supervision), having considered only conduct deviations and ignoring personal features of the individual, naturally determines further transformations of conduct and emotions. According to frequent learner's assessment, the problem is that they treat directing to the institutional care (children's care homes, children's socialisation centres) as an endeavour to get rid of them, violate their rights, as unwillingness and inability to help them to cope with problems. Therefore, the statement "...while staying here I went crazy, behaviour with other people changed, it became still more aggressive, bold, reserved... mostly I was angry on adults such as child rights, director of the home, educators and other... staying here isn't any good because behaviour changes not to the good side but to the bad..." confirms certain inconsistency of the applied model of conduct modification. This is to be related to another principle highlighting the controversies of the activity of the CSC; i.e., **the principle of conduct modification (changing of conduct) vs conduct transformation** (where the essential question is *To what degree does the learner, being purposefully affected by favourable psychosocial environment, modify his/her conduct in a motivated way, this way mastering the essential skills of social conduct and disassociating himself/herself from certain and at least episodically manifesting elements of subculture, which determine conduct transformation, adapting to changed requirements of institutional education?*) as well as to **the principle of integration-socialisation vs isolation-resocialisation** (*To what degree does the learner perceive the final goal of integration-socialisation processes, implemented in the CSC, and treat it as corresponding support, optimising the continuity of his/her psychosocial development, considering temporary manifestation of isolation-resocialisation processes?*)

This is evidently witnessed by the data given in Table 2, having analysed learners' subjective experiences in the aspect of isolation and conduct transformation (see Table 2).

Table 2. Experience of Institutional Education: Learners' Subjective Experiences (N=97).

Categories	Examples of confirming statements	N (frequency)	
		Girls	Boys
Education in children's care home	"Children's home spoiled my childhood for me"; "I got into the care home and felt unnecessary for anyone, I started smoking, drinking, stealing and fled home to my mother..."; "I've grown in the care home since early years..."; "... I lived in the care home for long with my three brothers and sisters..."; "I live in the care home"; "during that time my mother refused of me, I lived in the temporary care home..."; etc.	14	18
Education in the children's socialisation centre	"I got into that centre already for the second time..."; "the centre is the second in my life..."; "I spent 3 years in X centre..."; "time matured and I left and after two months I came back again..."; "I served in X CSC 8 months, then I was taken to Z CSC, I've stayed here already for 3 months..."; etc.	4	12
Experience of special educational (care) institution	"I was learning for three years in Švėkšna, there were many bad children there..."; "again I fled, after a month they found, brought me, I stayed for a month, again fled... then they took me to the lunatic asylum"; "I was in the mental institution for bad conduct 33 times...".	1	2

Given data reveal a complicated "story" of learners' life. The child's getting into the care institution is related to certain contradictory tendencies: on the one hand, the institution ensures the child's care, supervision and education, eliminating the negative impact of the environment, particularly family, and correcting the consequences of such education, but on the other hand, there are significant changes in very important psychological development segments, firstly regimen requirements, which in the institution regulate personality's autonomy and unconditional observance of corresponding norms, a larger number of staff members regulating life rhythm, and the necessity of constructing new relationships with other learners and anchoring in the group (Juodraitis, 2013). Many studies confirm that institutional setting provides the adolescent's and child's development with additional specific features (Samašonok & Žukauskienė, 2004; Samašonok, Juodraitis, & Gudonis, 2010; et al.) and is often a reason of social immaturity.

Analysing another controversy, which is to be related to **the principle of social fairness/social responsibility vs social isolation and freedom deprivation**, it is important to answer the following question: *To what degree is the juvenile informed and how much does he/she perceive the meanings of the principle of fairness and responsibility and of his/her directing to the CSC for a corresponding period and does not treat this as social isolation and freedom restriction sentence?*

The research revealed that often learners do not even know why and what kind of measure is imposed on them. There are cases of obvious intimidation with socialisation centres at schools. This is witnessed by one educator's statement: *"...Children come to the socialisation centre being very intimidated. The very social educators intimidate with the socialisation centre. They come to the centre like to the concentration camp. Others don't say that they will take them to the socialisation centre, sit them in the car and say that they will go to "Akropolis" or to do some shopping but they take them to the socialisation centre. The child is terribly shocked. There should be no intimidation or lying. Just to state that for some time he/she will have to live here..."; "Not always. Or they find out while going..."*.

Subjective experiences of learners (N=97) of the CSC, including (self-)assessment of current stay in the institution, range from positive assessment, which is more to be related to ensuring continuity of learning, to negative assessment, ruining the personality and restricting freedom (see Table 3).

Table 3. Subjective experiences of learners (N=97) of the CSC: (self-)assessment of current stay in the institution

Categories	Examples of confirming statements	N (frequency)	
		Girls	Boys
General positive assessment of staying in the CSC and its purpose	"I am happy that I'll finish school here..."; "It's good that I got here because I'll be able at least to finish 10 classes"; "It's very easy to learn here, very easy to get used to..."; "I started to do well and I'm happy that I started changing to the positive side..."; "I started believing in myself, doing homework, thinking about the future..."; "... I think that centres help because I personally changed my thinking..."; etc.	26	27
Naming of separate unsatisfactory components (attaching personal significance to them)	"I would like to be able to use the telephone"; "... they could allow us to have mobiles, to speak with friends, close family..."; "Security guard X should be changed because he 'is doing' all of us with a banana (is using a rubber baton against all of us); "...It's bad that it's far from home"; "... once you come to this centre you become cruel but not better..."; "there could be girls in this centre too, there would be less problems..."; "...I don't like that we can't smoke because the majority of those who are here have dependence..."; etc.	19	18
Assessment of the care home as a place of freedom restriction (deprivation)	"I'm already imprisoned here..."; "I wonder why these centres are opened at all because, in my opinion, girls and boys won't change, they will leave being still worse..."; "I didn't believe they will put me into the colony..."; "I've been imprisoned for more than half a year..." "they imposed a punishment of one year for me..."; "the court directed to the CSC, we have to stay here for one year"; "the sentence of the court was 2 years..."; etc.	4	13
Time counting tendencies as a factor of freedom restriction	"I've stayed here for 3 months, 9 months remaining"; "I've been here for about one year, I'll leave on January 3"; "I've been here long, for half a year, 2 more years and 6 months remaining..."; "only one month is left and I'll leave this cocks' place..." "I've been here for almost 10 months..."; "I've been sitting here for 5 months and 16 days"; "by December 23, I'll have spent 2 months..."; etc.	23	31

It should be stated that in principle the resocialisation processes of a certain share of learners (found more in boys' subjective assessments) can be disturbed by perception peculiarities of the purpose of the CSC, direction of the court to these centres and freedom restriction. This is evidently witnessed by 2 categories related to treating the CSC as a place of freedom deprivation (*assessment of the centre as of the place of freedom restriction (deprivation); tendencies of counting time spent in the CSC (or of time that remains) as a factor of freedom restriction*), where a considerable share of learners treat their getting into the CSC as a punishment, imprisonment or restriction, deprivation of privileges (telephones, cigarettes, the possibility to meet friends, girls, etc.).

However, it is important to note that almost a half of learners also express satisfaction with being in the CSC. The centre is partially understood as a possibility to change but most importantly it is perceived as a possibility to continue learning because in general education schools these learners occupy the position of “the inconvenient learner” when due to unsuitable conduct during the lesson, large learning gaps, truancy, often due to special educational needs he/she becomes unwanted, unacceptable at school. Many educators of the CSC confirm the fact that the majority of incoming children have large learning gaps.

The obtained results enable to formulate one more principle: **educational-developmental/ social education vs supporting the educational developmental principle**; i.e., *To what degree is the learner of the CSC involved in the educational-developmental process corresponding to his/her intellectual powers and aptitude level, in which all preconditions promoting success motivation are created and supportive tendencies of education-development are minimised?*

The written questionnaire was aimed at finding out how specialists of the CSC assessed the child’s preparation for active activities, social education and his/her own involvement/ participation. The majority of respondents noticed that it was sought to look for measures promoting children’s activeness in socialisation centres; i.e., attention is focused on the disclosure of the child’s inclinations and abilities for a corresponding professional activity ($M=3,86$), the endeavour to get involved in pre-vocational training activities ($M=3,83$) (Šapelytė, 2013). The analysis of empirical data revealed that formal, external drawbacks of social education and of the system of learners’ preparation for active activities (concretely emphasis of poor learning resources) were more underlined. This is witnessed in different specialists’ assessments (see Table 4).

Table 4. The System of the Learners’ Preparation for Active Activities: *Assessments of Different Specialists* (scale from 1 to 5)⁷ ($N=94$)⁸

Variables	Form tutors M	Educators M	Administration M	p ⁹
Organisation of active activities of learners of the CSC is the problem of the initiative of staff	2,86	3,10	2,33	0,033
Problems of involving children of the CSC in various active activities are the consequence of financial provision	3,98	3,53	3,92	0,045
No unanimous system and resources for development of children’s activeness in various activities are created	3,40	3,03	2,58	0,039
To be improved: the CSC does not have resources necessary for the child’s preparation to take part in professional working activities	4,37	3,95	3,78	0,027
To be improved: no unanimous system and resources are created for development of children’s activeness in various activities	4,19	3,47	3,57	0,005

⁷ Scale from 1 to 5, when: 1 – fully disagree, 2 – disagree, 3 – partially agree, 4 – agree, 5 – fully agree

⁸ Kruskal-Wallis test is applied

⁹ $P = 0,05$

Assessments of class tutors compared with the assessments of educators and in certain cases of administration, put more emphasis on the situation of inappropriate material resources and express a bigger need to enhance these resources. However, it is important to point out that there should be a focus on the development of internal resources (e.g., usage of existing competencies of the staff of the CSC, their development, promotion to take up search for new ideas and integration in the processes of learners' social education, preparation for life, in general, resocialisation, which would promote their involvement in interesting activities, expanding children's view and meeting learners' socio-educational needs).

Analysing children's subjective experiences, both positive tendencies, to be related to the child's education, development, and unfavourable assessments, creating a possibility to name the CSC as a regimen institution of supporting type, are observed (see Table 5).

Table 5. Self-assessment of (Self-)education Situation in the CSC

Categories	Examples of confirming statements	(N) frequency	
		Girls	Boys
Positive assessment of the educational institution	"In this centre I succeed very well"; "I'm doing well here"; "I feel well"; "I find it very good here to settle my behaviour..."; "class tutors and other staff support me and listen to me when it is difficult..."; "...in this centre you can learn more of everything than in the family..."; etc.	17	15
Positive assessment of occupation and leisure	"I go to different clubs..."; "it's good in the centre, there is a lot to do here..."; "mostly I like events, trips..."; "we are happy that we have more occupation"; "I really like how I'm occupied ..."; "... you learn to work, go to excursions, competitions..."; etc.	13	12
Negative assessment of the educational system	"I don't like to be because of very restricted life, nothing is allowed, they give a lot of work, never listen to ..."; "I don't like being here because really you won't become any better having left this place..."; "poor teaching because teachers don't know how to interest the child"; "I still haven't got used to because it's boring here, there is little activity..."; "people who want to change the child and not to harm him/her should work..."; "I hate this school and this centre.."; "... here I would like to change almost everything, leisure, classes because we are very restricted here..."; etc.	10	6
Critical assessment of occupation and leisure	"there could be more interesting occupations, floristics, what is related to beauty..."; "so that they at least let us go to the sports hall every day..."; "no workouts take place here, there could be some sports club"; "this centre lacks excursions..."; "we really lack the sports hall..."; "I like drawing but I don't have a possibility to (self-)develop..."; etc.	4	8
Satisfaction with welfare in the CSC	"Food is very good here"; "I don't complain about eating"; "I also think that we don't lack anything here..."; "food is delicious but they give too little for breakfast and supper"; etc.	3	4
Critical assessment of welfare in the CSC	"I'd like to change food in the canteen"; "it's necessary to eat more and tastier because every evening I have an upset stomach"; "we lack new kitchenette"; "... I don't like that we lack food, I'm often hungry.."; "they could change toilets, give bigger portions..."; etc.	6	15

Categories	Examples of confirming statements	(N) frequency	
		Girls	Boys
Positive assessment of regime requirements, incentives and sanctions	"I like the day regimen"; "You can go to work, get pluses for work..."; "If I hadn't got there, I would have further continued to mischief..."; "I'd like to stay here longer because having left I'll again start drinking again"; "social worker helped to change..."; "I have occupations, I don't run in the streets..."; "...here I understood that stealing, running and doing nonsense, you won't reach anything...", etc.	2	8
Critical assessment of regime requirements, incentives and sanctions	"I'd like them not to take away my telephone because almost all have but I don't..."; "I'd like to change almost everything because here we are very restricted"; "If one child does something then everybody suffers..."; "I wish there were no minuses because they write minuses for every bad thing"; "... they don't let us go to clubs in the city"; etc.	7	8
Vocational training, development of social skills	"It would be better if there was vocational training in the centre"; "there could be a possibility to work and earn money for oneself and learn to spend it normally..."; "there could be some work to do, earn money and get it. At least there would be little benefit..."; etc.	0	6

It is likely that the inconsistency that has showed up is to be related to such facts as: different age of respondents in one institution; time of staying in the institution and level of adaptation; exact circumstances of getting into the institution and the level of self-evaluation of one's fault; experience of institutional education and duration of care in the institution; gender aspects, etc.

Conclusions. Discussion

Paradoxicality of resocialisation processes in the context of five principles actualised in the article are related to the aim to highlight tendencies of observed good practice, objectives and to state evident drawbacks in the activity of child socialisation centres, which are tried to be concealed.

It is evident that controversies that have showed up are to be related both to the fact that it is attempted to view the situation from different standpoints of situation perception and assessment (of children, staff of the CSC), and to the fact that the very juvenile delinquency and their resocialisation is a huge challenge to the whole society, policy strategists, scientists and specialists working with such juveniles. The problem is related to the fact that there is no very clear, purified vision of juvenile resocialisation.

Search for strategies of juvenile resocialisation, constant discussions between practitioners, scientists, politicians' communities should create more definite visions of analysed centres, clearly regulating how children get into these centres, the system of their adaptation, education, staff selection and the system of its motivation to perform its functions with high level of responsibility. It is also important to point out that all responsibility for juvenile resocialisation should not be imposed on child socialisation centres. Very clear tendencies of the child's "pushing out from the society" and isolation are observed. This is evident in children's narratives, in which CSCs are also treated as institutions of isolation and freedom deprivation (very clear tendencies of calculating time spent in the institution and the remaining time are observed). "Pushing out" of the juvenile is to be related to delegation of all responsibility for his/her upbringing, education to closed type institutions (in this case child socialisation centres). These centres oddly start performing the role of a "scapegoat" in the

society when it falls on them to accept all fault and accusation for non-readiness of children who returned from the CSC to behave appropriately, for their repeated criminal acts and for “unsuccessfully” implemented resocialisation. However, there arises a question what roles and commitments are taken by others: municipalities, the school, child right institutions, assisting institutions. What responsibilities were taken by others so that the child who has returned could appropriately behave in the society: Was anything done in the child’s social context, his/her closest setting? It is evident that the juvenile returns to the setting that has not changed. Naturally, the question arises: What result can be expected if work is performed only with one segment of the system; i.e., the child, and the remaining system is left out of the way of intervention? In this case the juvenile is treated as the subject of the resocialisation process. It is a typical example of the clinical approach, when the “guilty” person is identified and it is sought to change him/her.

The principles highlighted in the article presuppose the idea that anyway it is important to establish CSCs according to the geographical principle so that learners have a possibility to maintain closer links with the closest social setting. This would create preconditions for the involvement of the subjects of the closest setting in juvenile resocialisation processes, seeking positive shifts in the juvenile’s conduct, and for affecting uneven functioning of separate social systems as well as for successful implementation of socialisation processes in a broader context (Bakutyte et al., 2013).

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PARADOXICALITY OF THE ACTIVITY OF INSTITUTIONAL EDUCATION INSTITUTIONS: PRINCIPLES AND OPPORTUNITIES

Summary

*Adolfas Juodraitis, Odeta Šapelytė,
Siauliai University, Lithuania*

The article presents the problem of paradoxicality of the activity of juvenile institutional education (i.e., socialisation centres operating in Lithuania). Several important variables have not been considered in the interaction of the activities of the socialisation centre, simultaneously of pedagogical and other staff and learners, their families/foster parents, and this resulted in inconsistency of the implementation of the complex resocialisation process. The article calls for the scientific discussion, actualising the essential principles of resocialisation observed in socialisation centres, grounded on empirical data of children's subjective experience (N= 97) and assessment of specialists of the child socialisation centre (N=94).

Scientific and practical relevance of the research presupposes the following **problem questions**: *How can the mission of child socialisation centres in the process of implementing juvenile resocialisation be described? What are possible contradictions in the context of aims raised by institutionalised resocialisation and actually implemented principles?*

Research subject: paradoxicality of activities of socialisation centres, implementing institutional education. The research aimed to **disclose principles and tendencies of organisation of juvenile resocialisation processes in socialisation centres (in the context of paradoxicality)**.

Analysing empirical research data, the assessment palette, submitted by both staff of the CSC and children, enabled to actualise several essential controversies of the principles of implementing institutional education and resocialisation processes, ranging from *preventive-warning/intervention-penal principle* to *integration-socialisation/isolation-resocialisation principle*. Also in the article, the principles of *conduct modification (changing of conduct) vs conduct transformation, of integration-socialisation vs isolation-resocialisation and social fairness/social responsibility vs social isolation and freedom deprivation* were discussed based on the empirical data.

Paradoxicality of resocialisation processes in the context of five principles actualised in the article are related to the aim to highlight tendencies of observed good practice, objectives and to state evident drawbacks in the activity of child socialisation centres, which are tried to be concealed.

It is evident that controversies that have showed up are to be related both to the fact that it is attempted to view the situation from different standpoints of situation perception and assessment (of children, staff of the CSC), and to the fact that the very juvenile delinquency and their resocialisation is a huge challenge to the whole society, policy strategists, scientists and specialists working with such juveniles. The problem is related to the fact that there is no very clear, purified vision of juvenile resocialisation. Search for strategies of juvenile resocialisation, constant discussions between practitioners, scientists, politicians' communities should create more definite visions of analysed centres, clearly regulating how children get into these centres, the system of their adaptation, education, staff selection and the system of its motivation to perform its functions with high level of responsibility.

The principles highlighted in the article presuppose the idea that anyway it is important to establish CSCs according to the geographical principle so that learners have a possibility to maintain closer links with the closest social setting. This would create preconditions for the involvement of the subjects of the closest setting in juvenile resocialisation processes, seeking positive shifts in the juvenile's conduct, and for affecting uneven functioning of separate social systems as well as for successful implementation of socialisation processes in a broader context (Bakutyte et al., 2013).



A COMMUNITY OF PRACTICE PILOT PROJECT FOR DELIVERING EARLY INTERVENTION PROFESSIONAL DEVELOPMENT

Sanna Harjusola-Webb, Ashley Lyons, Michelle Gatmaitan
Kent State University (USA)

Abstract

To ensure the fidelity of implementation of early intervention (EI) services in natural environments (NE), new types of partnerships are needed to systematically address this challenge. This paper describes one approach for effective professional development (PD) in EI to address the lack of systematic supports and PD for EI providers working with families in EI. The Early Intervention in Natural Environments Community of Practice (CoP) project was a six month study that endeavored to support previously trained EI providers in refining the use of their everyday practices. Given the potential of this approach for improving practices and child/family outcomes in the USA as well as in Europe through the development, implementation, and sustainability of a comprehensive system of ongoing PD, the NE CoP program evaluation plan and preliminary results are shared in their entirety.

Key words: *early intervention, evidence-based practices, recommended practices, coaching, professional development, implementation science*

A community of practice pilot project for delivering early intervention professional development

Early Intervention (EI) in the U.S. is a system of coordinated services that provide critical aspects of prevention, intervention, and supports for young children with disabilities or who may be at risk for disabilities and their families. The contemporary model of EI focuses on providing services in the natural environments (NE) to the maximum extent possible for the child and family. The NE principles also reflect the evidence and recommendations in EI research, such as (a) routines-based, relationship focused, parent-implemented intervention (Dieterich, Landry, Smith, Swank, & Hebert, 2006; Jung, 2007; Kaiser & Hancock, 2003; Landry, Smith, & Swank, 2006; Web & Jaffe, 2006; Woods & Kashinath, 2007; Woods, Kashinath, & Goldstein, 2004), and (b) integrated services through the transdisciplinary team approach, which is based on the concept that the child is an integrated whole and can best be served coordinated, integrated services delivered by a primary service provider with support and consultation from a team of different disciplines (Bush, Christensen, Grove, & Nagy, 2009; Woodruff & McGonigel, 1998). In the state of Ohio, the EI program is currently in the midst of significant reorganization. As lead agency of the state, the Ohio Department of Health (ODH) has worked together with Ohio Department of Developmental Disabilities (DODD) to develop a new approach to service delivery and program evaluation within the state.

While Ohio, among other U.S. states, have embraced the shift away from serving children in clinics and other specialized settings, the communities are still far from full implementation of EI in the context of natural environments and practices. The EI providers have the responsibility of gaining a new set of specialized skills and competencies based on evidence-based practices to fully address the needs of children with disabilities and their families in the home and community settings. The term evidence-based practice is increasingly visible in the configuration of EI. The evidence-based movement is an international movement to increase

the use of research-based findings and effective practices at the community level in typical service settings. While research in the field of early intervention (EI) has begun to identify recommended practices (RP), evidence-based practices (EBP), and procedural principles that improve outcomes for infants and toddlers with disabilities and their families, there remains a gap between what we know the research says is effective and what actually happens in practice (Bruder, 2000). The need for specialized training and ongoing professional development that adequately prepares the EI workforce in the state-of-the-art NE practices is one of the most urgent needs at the community level in Ohio, simply because families and children in EI cannot benefit from the evidence-based practices they do not experience. The research-to practice gap is well documented in the field of social sciences, and we recognize that developing effective interventions and practices is only the first step for better family and child outcomes in EI. Transferring knowledge, and moving the effective practices into the real life practices of EI providers and family members or caregivers, is a more complicated and usually long term process. The final Part C regulations of the Individuals with Disabilities Education Act (IDEA), released in 2011, state that one of the roles of an early intervention service provider is “[c]onsulting with and training parents and others regarding the provision of the early intervention services described in the IFSP of the infant or toddler with a disability” (§303.12). Recognizing the importance of revitalizing EI in the state, over the past several years DODD, together with state-based advocacy groups, have funded a variety of projects that were meant to explore the feasibility, need, and direction of professional development (PD) into the future. One specific evidence-based practice that has gained attention and resource allocation within Ohio is the use of coaching (Hanft, Rush, & Sheldon, 2004; Isner, Tout, Zaslow, Soli, Quinn, Rothenberg, & Burkhauser, 2011) as a means of receiving PD and interacting with families. While the enabling policies, funding, professional credentialing, organizations, and state departments are important, although none of these systematic structures come in direct contact with the child and the family. It is the EI provider who will directly impact the outcomes of early intervention through his or her implementation of EBP and interactions with the family.

Further, it is believed that in order to obtain implementation fidelity, an implementation science perspective is required (Fixsen, Naoom, Blase, Friedman, & Wallace, 2008). Implementation science is a transdisciplinary field of the study of methods that promote the integration of research evidence into real life settings and practice (Fixsen, et al., 2008). In other words, implementation science seeks to identify what is necessary to bring research (evidence-based practices) in alignment with policy (at the local, state, and federal level) and practice (awareness of EBP, implementation with fidelity).

Implementation science (IS) ties the research to practice while generating knowledge that can be applied across variety of settings and organizational contexts. Addressing the fidelity of implementation is one of its key considerations, and understanding some of the bottlenecks of implementation is one of the main purposes of IS. Metz, Blasé, & Bowie (2007) have identified successful supports- known as implementation drivers- that improve the likelihood of the effective use of a variety of practices. One of the six successful drivers is *coaching*. The role of coaching as a critical implementation driver has changed our approach for PD in EI, as the shift is moving away from only measuring family and child outcomes as evidence of the effectiveness of intervention, to measuring the implementation of the EBPs by the EI provider. Coaching and mentoring include activities in pairs or small groups that include observation, prompting, instruction, modeling, feedback, reflection, and debriefing. Researchers have reported on the effectiveness of coaching (Bowman & McCormick, 2000; Kohler, Crilley, Shearer, & Good, 1997; Kohler, McCullough & Buchan, 1995; Sparks & Bruder, 1987;) and performance specific feedback to improve teacher practices at both the preservice and inservice level (Barton, Kinder, Casey, & Artman, 2011; Barton & Wolery, 2007; Brown & Woods,

2012; Casey & McWilliam, 2011; Casey & McWilliam, 2008; Hemmeter, Snyder, Kinder, & Artman, 2011; Marturana & Woods, 2010). One important distinction is that coaching as an implementation driver is done on the job instead of in a classroom, conference session, or workshop setting. Learning how to be an effective coach can also improve EI teams' ability to share their expertise with one another which is a critical competency for the implementation of a primary coach approach with fidelity (Sheldon & Rush, 2007).

Object of the research. A community practice for delivering early intervention professional development.

Purpose of the research. Purpose of pilot project was to empower families through a professional development community of practice that would support caregivers of young children receiving early intervention in using EBPs with their children.

The aim of the project – research was to use a coaching the coach model to improve the fidelity with which EBPs were implemented by direct service providers and families. In order to achieve these objectives and aims in the long-term, a program evaluation plan approach was used to examine the extent to which the Project demonstrated evidence of a promising approach to PD.

Project plan assumed that that the use of coaching would improve relationships, the fidelity of implementation of EBPs, and ultimately child and family outcomes. While understanding the differing behavior, needs, and practices of EI providers from one locale to another is not always easy, understanding the skills, competencies, and the quality of EI providers' interactions with families and children are key variables in the sustainable uptake, adoption, and implementation of EBPs.

Methodology of Program evaluation plan. While there are a number of areas upon which the evaluation could have focused, it is important to narrow evaluation in a manner that ensures both feasibility and efficiency in the development, implementation, and evaluation process. The Project utilized an evaluation plan that is depicted in the logic model in Figure 1 and is tied to *outcome indicators* that are meant to serve as objective data upon which success could be measured. Similarly, the inputs, activities, and outputs depicted in the logic model are tied to *process indicators* that are intended to demonstrate the extent to which planning and ongoing implementation benchmarks were being met.

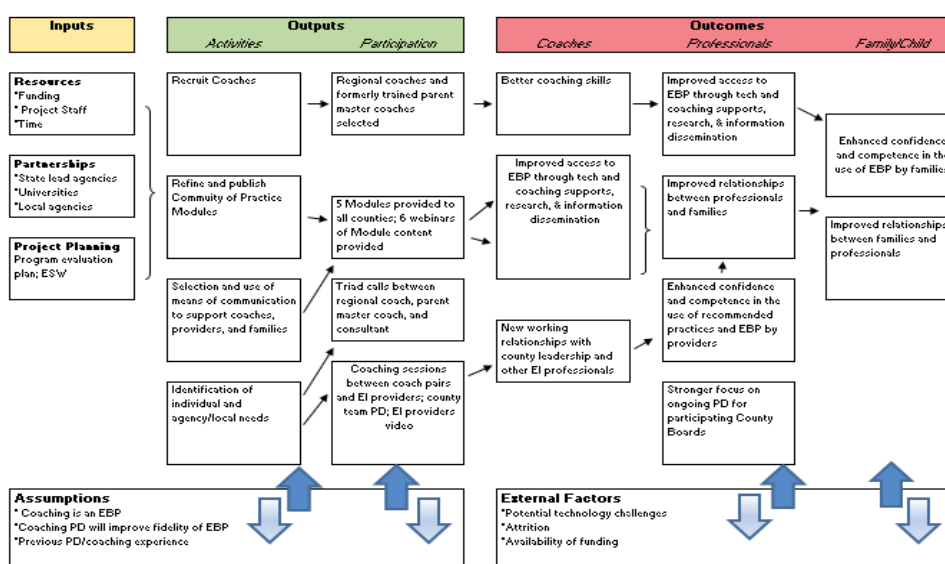


Figure 1. Initial Project Logic Model

As the Project was developed, implemented, and evolved over time, a variety of aspects needed to be examined. In these early stages, however, the focus of the evaluation was primarily on the development and/or refinement of the coaching competencies of EI providers. The justification for coaching competencies as the main focus was threefold:

1) competency in coaching improves professional collaboration, whether with team members, administrators, or families;

2) the improved skills in relationship-building provide for the optimal environment for building capacity within local EI programs through the fidelity of implementation of recommended and evidence-based practices through coaching interactions; and

3) the use of a coaching approach provides program staff, EI leadership, team members, and families with ongoing insight into the perspectives of one another.

To ensure that these outcomes had the potential to be met through the Project, evaluation questions that focused on the project process also had to be posed. Therefore, evaluation questions were situated in four main areas:

1) needs assessments;

2) program implementation fidelity;

3) coaching interaction fidelity; and

4) social validity (it should be noted that the Project was too short in duration to adequately measure child and family outcomes).

Table 1 describes the evaluation questions that we focused on during the Project. The Methods section describes the measures linked to these evaluation questions.

Table 1. Evaluation Plan Methods Grid

Evaluation Question	Outcome/Process Indicator	Resources Required	Method	Data Source	Person Responsible
Needs Assessments Is there a demonstrated need for focused and ongoing PD/TA in the areas of family-centered practice and teaming practices?	Process: Data related to the disposition and self-efficacy beliefs of practitioners across Ohio, within specific regions, and in individual counties	Participation of county EI leadership and teams Copies of needs assessments	Needs assessments to target PD	Competency Matrix FINESSE DEC Program Assessment	Consultant/ Regional Coach/Parent Coach triads

Evaluation Question	Outcome/Process Indicator	Resources Required	Method	Data Source	Person Responsible
Program Implementation Fidelity Were there sufficient interactions among and between state leadership, county leadership, EI teams/providers, families, and program staff? [What was the fidelity of program implementation regarding ongoing communication]	Process: Data related to the frequency, nature, and quality of interactions between stakeholders	Time and participation	Team meetings, triad calls, leadership calls/meetings (all leadership stakeholders), PD sessions, coaching sessions, social networks	Records of meetings (recorded or transcribed)	Project director; Consultant/ Regional Coach/Parent Coach triads
Were program action plans implemented as agreed upon?	Process: Data related to the nature of activities and deliverables agreed upon by leadership/ program staff (overall program) and/or triads (county-specific plans)	Development of action plans to meet weekly, monthly, quarterly, and yearly goals	Development and implementation of action plans	Copies of action plans with deadlines met indicated	Program director; Consultant/ Regional Coach/Parent Coach triads
Coaching Interaction Fidelity Did consultants, regional/parent coaches, and EI providers engage in coaching practices with fidelity?	Outcome: Data related to the quality of coaching, documented as frequency of recommended behaviors	Financial investment in regional/ parent master coaches Video or audio technologies to record coaching sessions Participation of EI providers and families	Coaching sessions between all parties are recorded using reliable video technologies	Videos or audio recordings of coaching sessions; behaviors observed or recorded on Coaching Observation Form	Consultant/ Regional Coach/Parent Coach triads EI providers (submit data to regional coach or consultant) Research Assistants for coding

Evaluation Question	Outcome/Process Indicator	Resources Required	Method	Data Source	Person Responsible
Social Validity Did all stakeholders find the program to be socially valid?	Outcome: Data related to the perceptions of stakeholders regarding the progress of the program and/or the effectiveness of the program	Participation of stakeholders	Focus groups, email/threaded discussion conversations	Transcribed focus group discussions	Program director/ Consultants/ research assistants

Adapted from the Centers for Disease Control and Prevention [CDC]: Developing an Effective Evaluation Plan (2011)

Methods of the research. The Project utilized a program evaluation plan approach, collecting and analyzing a mix of quantitative, qualitative, and program evaluation data to examine the effectiveness of the Project both in terms of our implementation process as well as the outcomes achieved by participant EI providers, coaches, and counties in the state of Ohio. In specific, we triangulated our data sources to determine the extent to which our Project achieved its objectives.

Recruitment and Participants. Project coaches (regional and parent) were selected from the population of previously trained coaches in the state of Ohio. Previously trained coaches that were eligible to participate consisted of occupational therapists, physical therapists, speech language pathologists, developmental specialists or early interventionists, and/or local supervisors/managers that had direct contact with children and families served through the Help Me Grow Early Intervention program in Ohio. Previously trained parent coaches were defined as parents of a child that receives EI now or had in the past, and who had participated in any past initiative in Ohio in which they were trained to work as coaches from the family perspective. Master consultants who would organize the Project and support coaches were doctoral students at Kent State University, one of whom assisted in the initial development of the Project and grant application for funding.

Ultimately, participants included two consultants (n=2), two parent coaches (n=2), and four regional coaches (n=4). Participating counties were not always the same counties represented by regional coaches. Three regional coaches supported their own county agencies, while one regional coach supported a county in a different area of Ohio. Not all of the counties received the same level of support; this varied dependent upon each county's needs assessments and leadership preferences.

Procedures/Sequence of Activities. After recruitment and selection of participants, parent coaches and regional coaches received ongoing PD support on several topics specific to EBPs in the field of EI. This PD occurred concurrent with parent coaches and regional coaches coaching EI providers and/or counties. The topics covered consisted of five learning modules that addressed key recommended and evidence-based practices. The topical modules were as follows: a) *Module 1*: Natural environment practice and agreed upon mission and key principles; b) *Module 2*: Evidence-based practices in coaching and mentoring (parents and EI providers); c) *Module 3*: Evidence-based practices in assessment; d) *Module 4*: Quality Individualized Family Service Plan (IFSP) development; and e) *Module 5*: Evidence-based practices in IFSP implementation and progress monitoring. During the Project, the content of these modules were delivered through a combination of online modules, webinars, EI team meetings, and county PD sessions. Each of the five modules was organized into three separate

tiers that were grounded in Bloom's taxonomy for learning (Bloom, 1956). The purpose of the tiered content was to provide EI providers with a wide variety of backgrounds, experiences, and expertise with a readily available selection of content that would meet their individual professional development needs. A different selection of reading materials, video content, interactive learning tools, and other resources were available within each tier. Throughout the modules, targeted questions were posed to EI providers through discussion threads and other means of online and telephone communication.

Coaching the coach model. Consultants provided support and individualized coaching to regional and parent coaches. There were a total of four *triads* consisting of a regional coach, parent coach, and consultant, with parent coaches and consultants working with two different regional coaches in separate counties. Each triad worked together as team to identify county needs and deliver effective PD. Consultants 'coached' the coaches regarding modular content and coaching behaviors to the extent necessary, while regional/parent coach *dyads* provided PD to each county by supporting EI providers (and sometimes teams) in learning modular content. The primary interaction of Project coaches with EI providers (and where applicable, teams) was the use of coaching. At minimum, each dyad worked with one selected EI provider in the county to provide personalized performance feedback and to coach the provider into becoming a coach not just with the families they served, but with colleagues on their EI team or throughout their county as well. Two of the four triads provided support to an entire county EI team as well. Additionally, videos were used to capture the coaching behaviors of EI providers with families. These videos served as the basis for the performance feedback that the provider received and was also shared with county EI teams to use as a model for discussion and to provide teams with the opportunity to coach one another.

Measures. Several measures were used to evaluate program outcomes and to encourage introspection among participants. In terms of the project evaluation plan, they were utilized for one of our four main evaluation focal points: 1) needs assessments; 2) program implementation fidelity; 3) coaching interaction fidelity; and 4) social validity. The relationship of each of the measures to our evaluation focus is detailed in the Results section in Table 4.

The measures used can be classified into two broader categories consisting of individual surveys and coaching interaction assessments. The surveys (which can be further stratified into program, provider, and family assessments) were provided to various program participants and are outlined in Table 2. The coaching interaction assessments consisted of self-checklists for program participants and coaching observation forms completed by program staff who coded behaviors and interactions observed on coaching session videos. Table 3 describes who completed each coaching interaction measure.

Table 2. Program, Provider, and Family Assessments

Program Assessments		EI Provider Assessments		Family Assessments	
Measure	Respondents	Measure	Respondents	Measure	Respondents
DEC Program Assessment *Pre	EI leadership at participating county agencies; select EI teams	EI in NE Competency Matrix *Pre and Post	Regional coaches, EI team members/ participating direct service providers	Family and Professional Partnership Scale *Pre and Post	Caregivers

Program Assessments		EI Provider Assessments		Family Assessments	
Measure	Respondents	Measure	Respondents	Measure	Respondents
FINESSE *Pre	EI teams at participating county agencies	FINESSE *Pre	EI teams at participating county agencies		
Focus Group ¹ *Post	Participating regional and parent coaches				

Note: 1) Focus Group examined the perception that the Project was useful in improving practices across the entire project related to each of the five modules

Individual Surveys. At the program level, participating EI providers and regional coaches working with their own county (and as applicable, EI teams and leaders) completed the Families in Natural Environments Scale of Service Evaluation [FINESSE] (McWilliam, 2000) in order to assess the perceived strengths and needs of the county EI program, as well as EI providers', teams' and leaders' beliefs about specific EI practices and principles. Participants were also asked to complete the DEC Program Assessment (Sandall, Hemmeter, Smith, & McLean, 2005), which provides additional needs-based information about the perceived areas of need for PD.

At the provider level, the EI in NE Competency Matrix (Gatmaitan, 2012) is based on Seven Key Principles of Natural Environments (Workgroup on Principles and Practices in Natural Environments, 2008) and assesses coaches and practitioners' current level of perceived competency in implementing evidence-based processes and practices aligned with the seven key principles. The purpose of this measure is to assist EI providers in reflecting on their competencies and where they feel they need additional support. The FINESSE was also used at the provider level in order to provider strengths and needs and guide the parent coach and regional coach dyad's coaching approach to individual providers.

The Beach Center Family and Professional Partnership Scale [FPSS] (Summers, 2010) was selected in order to assess the level of partnership between the caregivers and direct service providers. The FPSS provides additional documented data regarding the extent to which providers and families believed their relationships improved as a result of the Project.

Coaching interaction assessments. Self-checklists (Gatmaitan, 2013) served to support participating EI providers, regional and parent coaches, and consultants to monitor the fidelity of their coaching interactions in an ongoing manner. The self-checklists were based on the Seven Key Principles of Natural Environments (Workgroup on Principles and Practices in Natural Environments, 2008), and were consistent with the Competency Matrix. These checklists were also used during discussions regarding previous coaching sessions to assist in focusing conversation on concrete coaching behaviors and examples. Coaching Observation Forms (Harjusola-Webb, 2012) were designed to be completed in order to serve as objective documentation of the fidelity of coaching, and outcomes from these forms would provide the basis for quantitative program outcome data related to coaching interactions. To date, while some of the coaching videos have been coded using the Coaching Observation Form, transcription and coding work is still ongoing. As such, this data has not yet been analyzed. See Table 3 for information describing the process of how this data was collected.

Table 3. Coaching Interaction Assessments

Who	What	
	Coaching Self-Checklist	Fidelity of Coaching Observation Form
Direct Service Providers	<ol style="list-style-type: none"> 1. Reviewed video of session coaching parent 2. Documented personal coaching behaviors 	N/A
Regional Coaches and Parent Coaches	<ol style="list-style-type: none"> 1. Reviewed video of session coaching the direct service provider 2. Documented personal coaching behaviors 3. Reviewed video of session with direct service provider and parent 4. Documented coaching fidelity of the direct service provider 	N/A
Consultants	<ol style="list-style-type: none"> 1. Reviewed video/audio of session coaching regional/parent coaches 2. Documented personal coaching behaviors 3. Reviewed video of session with coaching dyad and direct service provider 4. Documented coaching fidelity of the regional and parent coaches 	N/A
Research Assistants	N/A	<ol style="list-style-type: none"> 1. Reviewed video session with consultants and regional/parent coaches 2. Documented coaching fidelity of the consultants 3. Reviewed video sessions with coaching dyads/triads and county EI teams 4. Document coaching fidelity of the coaching team 5. Reviewed video/audio of session with direct service provider and parent 5. Documented coaching fidelity of the direct service provider¹

Note: 1) Coding by research assistants is not yet complete. Limited coding data available was included in the triangulation process for our preliminary results.

Results of the research. Once data was collected for each of the process and outcome indicators as described in Table 1, these data were analyzed and then interpreted in order to determine the extent to which program activities, outputs, and outcomes matched the initial logic model of the Project. In other words, data analysis and interpretation provided us with objective information regarding whether the EI in NE CoP project was being implemented as planned, as well as the extent to which the Project achieved targeted outcomes. The methods used for data analysis for each process and outcome indicator are provided in Table 4.

Needs assessments. As described previously, needs assessments were conducted to plan meaningful professional development to Project participants. Two regional coach/parent coach

dyads worked primarily with EI providers (developmental specialists, occupational, physical, and speech therapists) in the regional coach's county of employment and used the FINESSE and DEC Program Assessment to determine their program needs in implementing recommended practices in natural environments (Counties 1 and 2). The other two dyads worked with either one or two EI providers individually and provided professional development support to county teams through a coaching model (Counties 3 and 4); County 3 used the FINESSE with two participating EI providers as well as all members of the county's leadership and teams, while County 4 used the FINESSE and the DEC Program Assessment with the participating EI provider as well as the county team and leadership. As such, Counties 3 and 4 received detailed reports regarding the results of their needs assessments that drove the development of ongoing PD sessions for those counties. Across all four participating counties, EI providers, regional

Table 4. Data Analysis Techniques by Assessment Type

Data Analysis Technique	Person Responsible	Timeline
<i>Needs Assessments</i>		
Quantitative- transfer data from DEC Program Assessments, FINESSE, and Competency Matrices into Excel. Generate graphs for each measure by EI team	Master Consultant working with given EI teams	At beginning of work with each county
<i>Program Implementation Fidelity</i>		
Quantitative- Interaction among and between stakeholders: frequency, nature, and quality (descriptive statistics)	Master Consultants	Ongoing for fidelity; end of Project
Action plans: deadlines met vs. missed; program activities by county and overall (descriptive statistics)	Regional Coach/Parent Master Coach triads	End of Project
<i>Coaching Interaction Assessments</i>		
Quantitative – coded coaching observation forms: frequency counts of each behavior, graph generation comparing coaching behaviors of consultants, regional coaches, and EI providers	Research Assistants	End of Project (not yet completed; ongoing)
Qualitative- content analysis of self-checklists used for coaching performance feedback	Master Consultants	Ongoing for performance feedback to EI providers and coaches; end of project for cross-county trends
<i>Social Validity Assessments</i>		
Qualitative- transcription of focus group sessions	Master Consultants	End of Project
Qualitative – content analysis of focus group data	Project Director and Master Consultants	End of Project

Note: Table adapted from Centers for Disease Control and Prevention [CDC]: TB Support Program Sample Evaluation Plan (2003)

coaches, and EI teams and leadership (where applicable) expressed a need for support in the area of identifying and supporting family needs and outcomes.

Results of the FINESSE and DEC program Assessment for Counties 1 and 2 revealed that both regional coaches and EI providers expressed similar professional development needs in the areas of family-based practices, in particular listening to family aspirations and priorities and increasing providers' comfort level with family-centered outcomes for the Individualized Family Service Plan.

Results of the FINESSE in County 3 demonstrated the providers, teams, and leadership strongly felt that the largest discrepancy between perceived typical and ideal practice across team members and leadership was in the area of the development and support of family outcomes & goals and the identification of family needs, followed by the use of time during intervention planning meetings. Interestingly, the DEC Program Assessment revealed that the County 3 team felt they were strong in family-based practices in addition to interdisciplinary practices while they agreed they could use additional support in the area of child-focused practices. Based on these results, County 3 elected to participate in a modified version of the five modules the regional and parent coaches were engaged in with the consultants and Project director.

Results of the FINESSE in County 4 indicated that providers, teams, and leadership strongly felt that the largest discrepancy between perceived typical and ideal practice across team members and leadership was in the area of the development and support of family outcomes & goals, followed by the written descriptions of the EI program used in the county and the intake process of getting families and children started through the program eligibility process. The results also showed that the county generally agreed that an area of strength was in the selection of outcomes and goals for children. Based on these results, County 4 elected to support specific teams in these areas as well as to provide county-wide PD in the area of family outcomes and functional IFSP development.

Program implementation fidelity. Each month, key Project staff (including master consultants and the Project Director) met to discuss progress and outline plans of action for moving forward. Project staff met by phone with state leadership periodically to keep the state informed of Project progress. From February through June 2013, regional and parent master coaches participated in a total of six webinars (five which matched the Module content and one that served as a focus group) that were led by either the master consultants or the Project Director. Although most were held monthly, the first two were held in February. By mid-February, all triads (regional/parent master coach and master consultants) began to hold routine meetings. Triads from Counties 1 and 2 usually held bi-weekly phone conference meetings, while triads from Counties 3 and 4 met weekly. By March, all regional coaches had identified EI providers or teams to participate in the Project, at which time the needs assessments were conducted. By March and continuing in April, program needs and priorities were identified through the needs assessments and steps were outlined to address needs. Four Counties 3 and 4, detailed graphic reports were prepared for leadership and EI teams based on county results of FINESSE and/or DEC Program Assessment. In County 3, there was one meeting with all leadership, and in County 4 the leadership participated in all sessions provided to teams and also held calls with the triad about twice a month. County 3 received one in-person professional development session that was required by County leadership, one optional session that was open to any team in the county, and at least four additional sessions that were provided to specific teams. County 4 usually received professional development from the triad every other week beginning in May.

A total of three recordings were produced for each county every month. These included a) video samples of EI providers working with families submitted monthly once consents were obtained; b) video or audio recordings of coaching sessions between regional/parent master coach dyads and the EI provider; and c) audio recordings of sessions between triads during

which time master consultants provided performance feedback to dyads. In all instances, participants completed the coaching fidelity checklist.

Coaching interaction fidelity. Although the Coaching Observation Form has not been fully coded for all coaching interactions recorded for the Project, and as such has not yet been fully analyzed, data from the self-checklists EI providers, regional coaches, parent master coaches, and consultants completed underwent a content analysis to determine preliminarily the fidelity of the coaching interactions of participants. For example, within the coaching interactions in County 1, there was an increase over time in collaborative goal setting between the regional coach and the EI provider. The regional coaches in both County 1 and 2 were able to facilitate reflection on the part of the provider, such that the provider was able to think critically about her practice and generate alternatives for how to improve upon practice. In County 3, both the regional coach and the parent coach were able to work collaboratively as a team from a distance to provide ongoing coaching support to one EI provider who shared her coaching with families' videos with her county team during PD sessions. In this county, the regional coach, parent coach, and county were all located in different parts of the state. While the parent coach had more experience with coaching at the offset, the regional coach was able to quickly acquire skills such as always asking open-ended questions, reflecting content, and shifting coaching behaviors as needed by the EI provider and/or the EI team. By the end of the Project, the team in County 3 demonstrated an improvement in coaching practices as evidenced by interactions between one another and stated opinions from team members that the coaching videos of the provider with the family every couple of weeks had been helpful. In County 4, the regional coach also had limited direct experience in coaching prior to the Project, but she was quickly gained considerable confidence and competence in her coaching practice which facilitated significant reflection and a change in practice on behalf of at least one of the EI providers the dyad worked with. More objective and specific data on the fidelity of coaching interactions will become available once all of the recordings have been transcribed, the Coaching Observation Forms completed, and the data analyzed.

Social Validity (Focus Groups). At the end of the Project period, we conducted focus group discussions with the regional and parent coaches to elicit their perspectives on their experience. We conducted the focus group online through the Adobe Connect videoconferencing tool. Due to scheduling constraints, we scheduled two discussion times, each lasting approximately one and a half hours. We asked questions that helped us understand their perspectives on the content (e.g., the training modules), the process or procedures, the use of technology, suggestions for how the Project can be implemented differently, continued challenges, and future directions. The same questions were asked in each focus group. In this next section, we will share participant perspectives on outcomes for coaches, EI providers, and families, following the outcomes section of the logic model for this Project.

Coaches. Better coaching skills. Regional and parent coaches described improvement in their own coaching skills as a result of the Project. The use of video, according to coaches, played a significant role in the process. One parent coach shared how video-recording herself was a "powerful tool". Service providers' use of video also enabled them to reflect and coach the family. Another regional coach expressed that the use of video, combined with the Coaching Fidelity Checklist, facilitated positive changes in coaching behaviors over time.

Improved access to evidence-based practices. Through the training modules, the various levels of coaching supports, and the use of technology, regional and parent coaches expressed that they had greater access to current evidence-based practices compared to prior to the Project. Coaches shared that they have a broader knowledge base of evidence-based practices as a result of their participation in the Project.

New or enhanced working relationships. As the Project encouraged regional and parent coaches to reach out to other teams beyond their own, or even other EI programs to disseminate information and support fidelity, coaches expressed that they formed new professional relationships with county leadership and other EI providers. One regional coach felt that she had “more of a community” as a result of the Project. Another regional coach, who has had a working relationship with neighboring programs in Northeast Ohio, expressed that she has been able to share new and useful information with other leaders and stakeholders across the state as a result of her participation in the Project.

Providers. Improved access to evidence-based practices. Similar to the outcomes for coaches, providers also had greater access to evidence-based practices. For example, as a result of the needs of providers, Project personnel created an online workspace on Wiggio, in which providers could log into and access a variety of materials, start and join discussion groups based on questions or concerns. An external website that houses the modules was also created to enable providers outside of the Project to access materials. In one program specifically, the regional coach sent reading material to providers based on a topic or practice that providers identified they would like to learn. According to the parent coach, “feedback on the materials has been positive.”

Improved relationships between providers and families. One parent coach described the changes she saw in the provider’s interactions with families, evidenced in the videos. As the parent coach described, over time the provider learned how to be a better observer to truly understand the child and family.

Enhanced confidence and competence in the use of evidence-based practice by providers. Coaches shared the observation that service providers and teams are “really thinking about embedded interventions, the joint plan, what happens between [service provider’s] visits, that naturalistic approach to learning and building upon family understanding.”

Stronger focus on ongoing professional development. County boards that participated in the program are focusing on efforts to sustain the work that was started in the Project to continue professional development for their providers. For example, one regional coach shared that her county plans to have monthly lunch discussion groups to continue having conversations about evidence-based practices. Another regional coach described how she has providers showing greater interest in the use of video to examine fidelity to evidence-based practices and further refine skills as a result of the Project.

Family/child. Enhanced confidence and competence in the use of evidence-based practice by families. One parent coach observed an increase in parent-child interaction in the family with whom she had worked during the Project, and an increase in the parent’s sense of knowing how to support the child.

Improved relationships between families and providers. A parent coach shared how she saw there was “more conversation happening” between the provider and family (rather than the provider simply “telling” the family what to do.).

Discussion. In this Project, our aim was to develop, implement, and evaluate a multi-faceted professional development for early intervention providers and program leaders in different regions of the state. Our multi-faceted approach included the delivery of training content through various modalities (online synchronous interactions and asynchronous content), a framework for individualizing content for adult learners through a tiered system, the use of technology for delivering content and connecting with participants, a system of coaching supports, and the formation of a Community of Practice. Although the Project was exploratory and short-term, preliminary results from a case example and focus group data suggest that specific Project components have been impactful for participants.

Our preliminary findings are consistent with past research on PD. According to Malone, Straka, and Logan (2000), assessment of participant needs is an important component; participants should be able to make decisions about their needs for training and how to address those needs (Snyder et al., 2011). Through needs assessments, coaches were able to decide with their teams what areas to address and how to support those areas. The formation of a Community of Practice, in which individuals participate together to develop shared knowledge (Snyder et al., 2011), was also seen as a benefit of the Project. Internally, coaches formed a Community of Practice with fellow coaches and the consultants; externally, coaches either strengthened their sense of a Community of Practice with their respective programs and beyond. Another key component of PD that has been identified in the literature is coaching, in which the coach supports the learner in acquiring and mastering new skills through a process of joint planning to set goals, information sharing, instruction, modeling, practice, performance feedback, and reflection (Friedman et al., 2012; Moore & Harjusola-Webb, 2013). Coaches expressed that they were able to refine their coaching skills as a result of the Project. In addition, coaches and providers benefited from the use of video for observing performance (Marturana & Woods, 2012) and self-reflection. Our Project findings also suggest that a time frame of longer than six months may be necessary to truly lead to sustained changes. According to Snyder et al. (2011), PD approaches must be long-term. It is not yet clear what minimum length of time may be needed as this criterion may vary from one training context to another.

Implications. Our preliminary findings have various implications for early intervention providers, programs, policies, as well as for children and families.

EI providers. EI providers' competence and confidence in implementing evidence-based early intervention has a great impact on the quality of services delivered (Center to Inform Personnel Preparation Policy and Practice in Early Intervention and Preschool Education, 2007). Coaches who participated in this Project identified limited access to research as a barrier to staying up-to-date on current evidence and best practices. In addition to content, access to ongoing supports for providers can help ensure continued implementation of quality practices. Teaming is another area that needs to be supported to facilitate the exchange and sharing of knowledge, skills, and EBPs between and among team members. When each and every team member feels competent, confident, and supported in his or her delivery of evidence-based early intervention, child and family outcomes can be more fully promoted.

EI programs and policies. Overwhelmingly, coaches identified the critical need for a statewide system of PD. In a large-scale national study, only 39% of EI programs across the United States reported having systemic and sustained PD, and only 23% had technical assistance systems for PD (Center to Inform Personnel Preparation Policy and Practice in Early Intervention and Preschool Education, 2007). According to Bruder et al. (2009), the use of promising practices such as coaching has been minimal. Professional development must be ongoing, include content specific to evidence-based practices, and offer sustained supports in the form of coaching to promote skill development. As Malone et al. (2000) stated, follow-up supports are crucial, "because no professional development effort can be considered effective unless consumer gains can be demonstrated" (p. 58).

Children and families. Although child outcomes were not measured specifically, when caregivers are supported in their role they too will feel competent and confident in promoting their child's development. Families must feel engaged and be able to participate fully in services as empowered decision-makers and active members of the team.

Limitations. There were several limitations to the Project. First, the short-term time frame of six months limited the amount and duration of supports provided to participants. Second, there were specific constrictions with regard to recruitment, which limited the pool of possible participants from which to select. For instance, one program's leadership expressed

interest in participating, but did not meet the qualifications to participate. Another program met the qualifications, but declined to participate at this time due to program-specific circumstances. As a result, gaining entry into some programs proved to be a challenge. Third, the nature of the Project presented a challenge in terms of balancing individualization and adhering to a specific research protocol. Fourth, the small sample size does not allow us to generalize our findings to larger samples.

Recommendations. Based on the Project, we have recommendations for various levels of the EI system. At the level of the provider or team, it is important that individual providers or teams have the capacity to be agents of change. By advocating for increased access to PD and participating in communities of practice that support their learning and growth, providers and teams will be better equipped to implement EBPs with fidelity. To that end, a critical recommendation is a model for PD that is consistently provided to all providers and teams while also allowing for individualization to meet the unique and diverse needs of teams in their own local communities. High-quality PD that creatively utilizes technology (e.g., the use of video as a learning and reflection tool, synchronous means of interacting to overcome the boundaries of time and space) can connect providers to each other as well as connect providers to mentors (Marturana & Woods, 2012). Although these efforts can happen “from the bottom up”, we also recommend initiatives “from the top down” for system-wide consistency and systems change.

Implementation science has been receiving much attention in the field of early intervention and early childhood special education. High-quality and effective PD is considered an important means for improving practitioners’ implementation of evidence-based practices (Child Trends, 2010). Due to the multi-faceted nature of the Project and the combination of training approaches used, it is unclear which PD components led to which changes in practice. Although a combination of PD approaches is likely important, additional research is needed to truly understand which training practices are effective, for whom and in what context (Snyder et al., 2012).

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A COMMUNITY OF PRACTICE PILOT PROJECT FOR DELIVERING EARLY INTERVENTION PROFESSIONAL DEVELOPMENT

Summary

Sanna Harjusola-Webb, Ashley Lyons, Michelle Gatmaitan
Kent State University

Early Intervention in the U.S.A. is a system of coordinated services that provide critical aspects of prevention, intervention, and supports for young children with disabilities or who may be at risk for disabilities and their families. The contemporary model of EI focuses on providing services in the natural environments to the maximum extent possible for the child and family. The NE principles also reflect the evidence and recommendations in EI research, such as (a) routines-based, relationship focused, parent-implemented intervention and (b) integrated services through the transdisciplinary team approach, which is based on the concept that the child is an integrated whole and can best be served coordinated, integrated services delivered by a primary service provider with support and consultation from a team of different disciplines (Bush, Christensen, Grove, & Nagy, 2009; Woodruff & McGonigel, 1998).

The EI providers have the responsibility of gaining a new set of specialized skills and competencies based on evidence-based practices to fully address the needs of children with disabilities and their families in the home and community settings. While research in the field of early intervention (EI) has begun to identify recommended practices (RP), evidence-based practices (EBP), and procedural principles that improve outcomes for infants and toddlers with disabilities and their families, there

remains a gap between what we know the research says is effective and what actually happens in practice (Bruder, 2000). One specific evidence-based practice that has gained attention and resource allocation within Ohio is the use of coaching (Hanft, Rush, & Sheldon, 2004; Isner, et al. 2011) as a means of receiving PD and interacting with families.

One of the important fields of EI is *coaching*. The role of coaching as a critical implementation driver has changed our approach for PD in EI, as the shift is moving away from only measuring family and child outcomes as evidence of the effectiveness of intervention, to measuring the implementation of the EBPs by the EI provider. Coaching and mentoring include activities in pairs or small groups that include observation, prompting, instruction, modeling, feedback, reflection, and debriefing. **Object of the research.** A community practice for delivering early intervention professional development. **Purpose of the research.** Purpose of pilot project was to empower families through a professional development community of practice that would support caregivers of young children receiving early intervention in using EBPs with their children.

The aim of the project was to use a coaching the coach model to improve the fidelity with which EBPs were implemented by direct service providers and families. In order to achieve these objectives and aims in the long-term, a program evaluation plan approach was used to examine the extent to which the Project demonstrated evidence of a promising approach to PD. The Project utilized an evaluation plan that is depicted in the logic model and is tied to *outcome indicators* that are meant to serve as objective data upon which success could be measured. Similarly, the inputs, activities, and outputs depicted in the logic model are tied to *process indicators* that are intended to demonstrate the extent to which planning and ongoing implementation benchmarks were being met.

Methods of the research. The Project utilized a program evaluation plan approach, collecting and analyzing a mix of quantitative, qualitative, and program evaluation data to examine the effectiveness of the Project both in terms of our implementation process as well as the outcomes achieved by participant EI providers, coaches, and counties in the state of Ohio. In specific, we triangulated our data sources to determine the extent to which our Project achieved its objectives.

Discussion of the results. Multi-faceted approach included the delivery of training content through various modalities (online synchronous interactions and asynchronous content), a framework for individualizing content for adult learners through a tiered system, the use of technology for delivering content and connecting with participants, a system of coaching supports, and the formation of a Community of Practice.

Internally, coaches formed a Community of Practice with fellow coaches and the consultants; externally, coaches either strengthened their sense of a Community of Practice with their respective programs and beyond. Another key component of PD is coaching, in which the coach supports the learner in acquiring and mastering new skills through a process of joint planning to set goals, information sharing, instruction, modeling, practice, performance feedback, and reflection (Friedman et al., 2012; Moore & Harjusola-Webb, 2013). Coaches expressed that they were able to refine their coaching skills as a result of the Project. Project findings also suggest that a time frame of longer than six months may be necessary to truly lead to sustained changes.

Preliminary findings have various implications for early intervention providers, programs, policies, as well as for children and families and **recommendations** as well. Based on the Project, there are recommendations for various levels of the EI system. At the level of the provider or team, it is important that individual providers or teams have the capacity to be agents of change. By advocating for increased access to PD and participating in communities of practice that support their learning and growth, providers and teams will be better equipped to implement EBPs with fidelity. To that end, a critical recommendation is a model for PD that is consistently provided to all providers and teams while also allowing for individualization to meet the unique and diverse needs of teams in their own local communities.

OCCUPATIONAL MOTIVATION OF MUSIC TEACHERS AS SIGNIFICANT FACTOR OF SOCIAL WELLBEING

*Giedrė Gabnytė,
Lithuanian Academy of Music and Theater
Diana Strakšienė
Šiauliai University*

Abstract

The article deals with the peculiarities of manifestations of music school teachers' occupational motivation as a significant factor of social wellbeing. It presents the results of questionnaire survey of teachers: professional satisfaction estimates are given, peculiarities of collaboration of participants in the process of education are revealed, and evaluations of health, work conditions, and material interest of teachers are provided.

Keywords: *social wellbeing, music teachers, occupational motivation.*

Introduction

Way back in the Plato state and Aristotle day's writers, philosophers and public figures were concerned with an important issue: where does the essence of completeness of human life lie? This question is still analysed today, in the times of rapid economic, social, and political globalisation and of change of the cultural environment. Content of recent discussions at the public, social, and academic arenas (both on micro and macro levels) reflects a rather modern approach to completeness of life. This means that not only attention is paid to the preconditions for improvement of minimal, basic conditions for wellbeing, but also the importance of higher, more sublime needs of an individual as emphasized. Scholarly literature rather often uses the concept of *quality of life* that is partly related to the concept of *completeness of life* (Camfield, 2005; Royo & Velazco, 2006; etc.) and there is a substantial body of research related to quality of life (Meacher, 2001; McGregor, 2006; etc.). According to Janušauskaitė (2008), the dimensions of quality of life have long been associated solely with economic, material wellbeing and income, but nowadays quality of life is regarded as a much more complex construct: quality of life is identified with social wellbeing of an individual, which embraces the sense of happiness, opportunity for self-realization, feelings, health etc. One of the factors of social wellbeing is occupational motivation. The analysis of occupational motivation in the context of musical education (specifically, of occupational activities of teachers at music schools) enables the assessment of the importance of occupational activities for the sense of completeness of life and wellbeing of a teacher.

Research subject - music school teachers' occupational motivation.

Research aim is to reveal manifestation of music school teachers' occupational motivation as a factor of social wellbeing

Research objectives are:

1. To define the concept of occupational motivation as a multiple construct;
2. To validate the instrument for research into occupational motivation of teachers;
3. To generalise the peculiarities of the manifestation of occupational motivation of teachers.

Methodology and results of research into occupational motivation of music teachers.

Literature defines occupational motivation as a driving force inspiring maturity of a personality and professional growth, which is determined by microenvironment, social, psychological, and ethnical factors (Митюкова, 2006). Gage & Berliner (1994) claim that motivation is like a driver, the energy capable of directing pedagogical behaviour. A similar description of motivation is provided by Myers (1996) who compares it to a powerful force having various effects on the process of educational activity. According to Шевко (2011), occupational motivation can be regarded as a multi-factor construct. A teacher's thoughts, actions, and behaviour are determined by a series of motivational factors (material rewards, work conditions, social contacts, relationships, recognition, authority etc.), which makes it possible to regard and interpret motivation as a complex structure (Шевко, 2011).

A research into music school teachers' occupational motivation was carried out in Lithuania during February-April of 2013. The research participants were 367 teachers of instrument disciplines (grand piano, stringed, folk, wind, and percussion instruments, accordion, guitar) who were given anonymous questionnaires.

To analyse and generalise the results of the said research the numerical measures of descriptive statistics have been used, namely frequency analysis. To systemise and generalise the research data and increase their reliability a scale method has been used. Interval scales were developed and Likert scale building methodology was used. A principal component analysis method was applied in the research. The obtained results of the empirical research were processed with the SPSS (Statistical Package for Social Sciences) software. The factor analysis of obtained results of the survey made it possible to arrange the questionnaire statements into 8 diagnostic scales. The diagnostic music teachers' occupational motivation model is given in Figure 1.



Figure 1. Diagnostic music teachers' occupational motivation model.

Scout, Coxt, & Dinham (1999) analyse the relationship between pedagogical motivation and professional satisfaction. They propose that the satisfaction with profession is usually determined by a number of factors and circumstances, such as love for children, need for professional growth, ability to be happy with the results achieved and so on. According to the

results of research on the occupational motivation of teachers most of the teachers currently working at music schools are happy with the educational activity they do. It turned out that more than 80% of teachers are happy with educational activity. The results of the research demonstrate a statistically significant (significance level $p \leq 0.05$) impact of competitive environment ($\chi^2=29.182$; $df=4$; $p=0.000$) and material interest ($\chi^2=65.183$; $df=4$; $p=0.000$) on satisfaction of teachers. The estimates that reflect the relationship between the competitive environment and satisfaction of teachers with educational activity show that the competition between teachers at a contemporary music school possibly affects how a teacher feels and may have effects on the process of education at school as well. The influence of the said factors on teachers' satisfaction with their profession is reflected by the results of regressive analysis, which are provided in Table 1.

Table 1. Influence of factors on teachers' satisfaction with their profession. Results of regressive analysis (N=367)

Factors affecting teachers' satisfaction	Standardized coefficient beta	t	Sig (p)
Competitive environment	-0.180	-3.582	0.000
Material interest	-0.372	-7.434	0.000

$R^2=0.229$

Manifestation of a teacher's occupational motivation in education allows discussing the communication and cooperation of participants in the process of education as factors that can lead to multifaceted occupational motivation. Anzenbacher (1992) proposes that the process of and need for collaboration/communication can be attributed to the entirety of essential factors and motives of satisfaction of human needs, motivation driving general practical human activity. The factor of manifestations of educational authoritarianism in communicating with students was analysed as possibly affecting occupational motivation, hypothetically thinking that features of educational authoritarianism may manifest in the educator-educatee interaction. It was found that in the area of contemporary music teaching this factor is expressed rather evidently: educational authoritarianism while interacting with student's manifests in professional practice of 74.4% of teachers.

There is yet another aspect of communication and collaboration among the participants in the process of education: manifestation of the relations between a teacher and a student's parents. Stoll & Fink (1998) contemplate that success in teacher-parent collaboration is determined by many factors including the creation of a student-friendly environment ensuring student's safety, possibilities to express his/her opinion, and participate in various activities. The teacher-parent relationship aspect of quality of collaboration among the participants in the process of education was analysed, specifically the aim was to determine the dominant attitude of teachers to the involvement of parents in the process of education. The results obtained are optimistic and confirm the prerequisites for such collaboration: parent-teacher collaboration is important for teachers (partly positive attitude to the involvement of parents in the process of education is characteristic to 34.1 % of the respondents and positive attitude is shared by 52.1 %).

A somewhat less often analysed in the literature on education but nonetheless equally important to both the process of education and the occupational motivation of teachers is the communication and collaboration among the educators or teacher-student relationship. Hargreaves (1999), Bužinskas (2001) emphasize that collaboration among the educators affects the results of overall activity of educatees, their behaviour and learning to communicate. Collegial interaction is also important for support to the balance of mind of a teacher. A

community of teachers with goodwill about each other creates a sense of security, boosts job motivation, and provides a sense of self-confidence. The aspect of competitiveness in the relationships between a teacher and colleagues was analysed in the research. Application of chi-square test revealed statistically significant relationships between the influence of competitive environment and school principal on the process of education. The analysis of the results obtained suggests that the stronger expression of negative influence of principal at the educational space, the greater competitiveness. The results of the regression analysis (see Table 2) demonstrate that material interest of teachers also influences the development of competitive environment at school.

Table 2. Influence of factors on development of competitive environment at school. Results of regression analysis (N=367)

Factors influencing competitive environment	Standardized coefficient beta	t	Sig (p)
Influence of school principal on the process of education	0.154	3.118	0.002
Material interest	0.338	7.059	0.000

The author of the article proposed a hypothesis that in a contemporary educational environment it is obviously impossible to avoid negative encounters between teachers and principals, and therefore negative influence of principals on school and the overall process of education as well. However, the research results reveal a rather surprising fact: 56.1% of the respondents view the influence made by school principal as positive and 34.1% say it is neutral. It is interesting that the development of this attitude is influenced by the place of residence: influence of principals of music schools in smaller towns is viewed as making a rather positive influence on the process of education, while the largest part of teachers viewing influence of a principal as negative is in Klaipėda City. This finding not only vividly illustrates the contrasting attitudes of teachers in different demographical contexts, but also reveals the differences between communities at city and town schools: relationship between principal and teachers in small communities is likely expressed more positively and is more based on collegiate spirit and mutual collaboration.

The occupational motivation block is supplemented with some more scales: *reconciliation of family needs and work, health and work conditions, material interest*. The choice of the scale of *reconciliation of family needs and work* as a component of the *Occupational motivation* block has been made on the basis of observations by a number of scientists about the importance of reconciliation of work and family leading to more favourable climate at work, satisfaction of family needs, and better results of professional activities (Reingardienė, 2006; Davidavičius, 2001-2005 project). In the research this scale substantiates the family influence as a reflection of manifestation of a person's intrinsic motivational factor as well as one of the important factors of social wellbeing. It has been found that work and family is successfully reconciled by 55.6% of all surveyed teachers, and 36.8% are partially successful at that.

The *material interest* scale was chosen to assess the importance of material rewards for music teachers and how they affect occupational motivation. Analysis of manifestations of material interest in doing teaching job reveals that 56.7% of the respondents do not have material interest in their work. However, the previously analysed statistical relationships between satisfaction with pedagogical activities, competitive environment, and material interest suggest that although material interest is not dominant, it is rather important for teachers.

To substantiate the influence of environment and conditions on motivation of teachers, the insights by Furnham, Forde, & Ferrari (1999) and other researchers, which prove significance of health and work conditions to daily work of a teacher, were referred to. According to scientists, teaching job is characterised by increased risk conditions and circumstances rather often threatening health. In their professional activity teachers face responsibility, abundance of roles of teacher, and high professional demands. The research has revealed that presently work conditions are viewed as perfect by 21.5%, very good by 19.9%, and good by 34.1% of the respondents. 76.9% of the teachers say their health is great or rather good.

Conclusions:

1. The results of the analysis of the factor of occupational motivation having been analysed we can conclude that most of the teachers working at contemporary music schools are happy with the teaching activity they do, which likely helps them to feel completeness of life. Satisfaction is caused by such factors as manifestation of work-friendly and competition-free environment and adequate financial reward. These results suggest that in the aspect of satisfaction with professional activity the teachers are professionally motivated.
2. Analysing the attitudes of teachers to educational authoritarianism it has been found that this phenomenon is characteristic to the work of most teachers. Nowadays manifestations of educational authoritarianism in interaction with students are mainly affected by these factors: competitive environment and negative influence of principal on the process of education. Teacher-student relationship based on educational authoritarianism likely affects occupational motivation of a teacher as well.
3. Attitude of teachers towards parent-teacher collaboration can be regarded as positive (likely making positive influence on occupational motivation of a teacher as well) bearing in mind the approval by most respondents of parent involvement in the process of education.
4. Manifestation of competitive environment as a possible source of negative influence on occupational motivation in educational practice has been determined: manifestations of such environment can still be found at a contemporary music school, but, according to the respondents, it is not characteristic to some schools. The research results obtained indicate that the development of competitive environment is mainly influenced by negative impact of principal on the process of education and material interest of teachers when working at school.
5. Analysing the features of influence of principals on the process of education it has been found that slightly more than a half of teachers regard the influence of principals as positive. It is possible that positive relations with a principal is also an important factor for making a teacher feel good and have a sense of completeness of life.
6. Ability of teachers to reconcile family matters and career, rather good physical health, and work conditions satisfying for teachers can be regarded as positive preconditions for occupational motivation, which proves the possibility to treat these factors as making positive influence on social wellbeing of teachers.

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OCCUPATIONAL MOTIVATION OF MUSIC TEACHERS AS SIGNIFICANT FACTOR OF SOCIAL WELLBEING

Summary

*Giedrė Gabnytė, Lithuanian Academy of Music and Theater;
Diana Strakšienė, Šiauliai University*

Dimensions of quality of life have long been associated solely with economic, material wellbeing and income, but nowadays quality of life is regarded as a much more complex construct: quality of life is identified with social wellbeing of an individual, which embraces the sense of happiness, opportunity for self-realization, feelings, health etc. One of the factors of social wellbeing is occupational motivation. Analysis of occupational motivation in the context of musical education (specifically, of occupational activities of teachers at music schools) enables the assessment of importance of occupational activities for the sense of completeness of life and wellbeing of a teacher. **Research subject** – music school teachers' occupational motivation. **Research aim** is to reveal the manifestation of music school teachers' occupational motivation as a factor of social wellbeing. **Methodology and results of research into occupational motivation of music teachers.**

Literature defines occupational motivation as a driving force inspiring maturity of a personality and professional growth, which is determined by microenvironment, social, psychological, and ethnical factors (Митюкова, 2006). Gage, Berliner (1994) claimed that motivation is like a driver, energy capable of directing pedagogical behaviour. A research into music school teachers' occupational motivation was carried out in Lithuania during February-April of 2013. The research participants were 367 teachers of instrument disciplines (grand piano, stringed, folk, wind, and percussion instruments, accordion, guitar) who were given anonymous questionnaires. The research reveals that family influence as a reflection of manifestation of a person's intrinsic motivational factor is one of the important factors of social wellbeing as well. It has been found that work and family is successfully reconciled by 55.6% of all surveyed teachers, and 36.8% are partially successful at that.

The *material interest* scale was chosen to assess the importance of material rewards for music teachers and how they affect occupational motivation. The analysis of the manifestations of material interest in doing teaching job reveals that 56.7% of the respondents do not have material interest in their work. However, the previously analysed statistical relationships between satisfaction with pedagogical activities, competitive environment, and material interest suggest that although material interest is not dominant, it is rather important for teachers.

The research has revealed that presently work conditions are viewed as perfect by 21.5%, very good by 19.9%, and good by 34.1% of the respondents. 76.9% of the teachers say their health is great or rather good.

The results of the analysis of the factor of occupational motivation having been analysed we can conclude that most of the teachers working at contemporary music schools are happy with the teaching activity they do, which likely helps them to feel completeness of life. Satisfaction is caused by such factors as manifestation of work-friendly and competition-free environment and adequate financial reward. These results suggest that in the aspect of satisfaction with professional activity the teachers are professionally motivated. According to the analysis results the **conclusions** could be drawn:

Analysing the attitudes of teachers to educational authoritarianism it has been found that this phenomenon is characteristic to the work of most teachers. Nowadays manifestations of educational authoritarianism in interaction with students are mainly affected by these factors: competitive environment and negative influence of principal on the process of education. Teacher-student relationship based on educational authoritarianism likely affects occupational motivation of a teacher as well.

Attitude of teachers towards parent-teacher collaboration can be regarded as positive (likely making positive influence on occupational motivation of a teacher as well) bearing in mind the approval by most respondents of parent involvement in the process of education.

Manifestation of competitive environment as a possible source of negative influence on occupational motivation in educational practice has been determined: manifestations of such environment can still be found at a contemporary music school, but, according to the respondents, it is not characteristic to some schools. The research results obtained indicate that the development of competitive environment is mainly influenced by negative influence of principal on the process of education and material interest of teachers when working at school.

Analysing the features of influence of principals on the process of education it has been found that slightly more than a half of teachers regard the influence of principals as positive. It is possible that positive relations with principal is also an important factor for making a teacher feel good and have a sense of completeness of life.

Ability of teachers to reconcile family matters and career, rather good physical health, and work conditions satisfying for teachers can be regarded as positive preconditions for occupational motivation, which proves the possibility to treat these factors as making positive influence on social wellbeing of teachers.

PERSONAL MODUS OF FUTURE SPECIALISTS' SELF-REALIZATION

Liudmyla Serdiuk

Open International University of Human Development "Ukraine", Kyiv, Ukraine

Abstract

The paper discusses the features of personal organization and mediation of self-realization with personal characteristics at different levels of the integral indicators of self-attitude. It was found out that the implementation of personal potential is possible only at adequate self-attitude, a level of aspiration and person's life perspective.

Keywords: *self-realization, self-attitude, level of aspiration, life perspective, self-organization.*

Introduction.

The study of personal life courses indicates that the most important condition for personal development and self-fulfillment is person's life perspective as an image of a desirable and perceived possible future life. Life perspectives give to persons the abilities to organize their lives, to plan and implement them (Абульханова-Славская, 1991), namely, a subjective picture of a personal life course reflects the stages of social and individual development of a person (Ананьев, 2001), and finally, a specific feature of human life determination is the predestination of life events by the past and the future, so by the objectives and predictable results of life activities (Головаха & Кроник, 1984).

Person's life relationships determine the activity motivation and sense bearing content of personality characteristics. In subjectively transformed forms, life relationships exist as sense bearing structures of personality – meaning of life, values, motives and so on. Therefore, "motivation of human behavior is subjective determination of human behavior mediated by a process of world reflection..." (Леонтьев, 1993).

To sum up, personality psychology is faced with the task: to understand what is a subjective-personal plane of human activities, and what is included into biological and social functions of a person.

Re-orientation of deterministic relationships can occur when a person becomes a real actor capable to be self-developed and self-determined. In this case, the driving forces of personal development are located in his/her individuality, and external factors lose their programming role. Thus, a general pattern of psychological development of a personality as a subject is expressed in the strengthening of capacity for self-determination and in logical expansion of personal freedom from external and internal circumstances.

A person, as a holistic psychological system, is not in the opposition to the objective world, but in the union with it, with the world part that has importance, meaning, and value for the person. Thus, a personality of a student, who is integrated into the educational environment, the main value of which is, as it is known, self-development and self-realization, depends entirely on the values of his/her social community, which he/she identifies own personality with.

The aim of the paper is to substantiate and reveal possible variants of interaction of a holistic "personality" system with its other components: attitude toward others and self-estimation, a desire for self-fulfillment and factors that help to transit virtual states inherent in an integrated system "personality- social environment" into actual behavior.

The object of the study is personal self-realization as a phenomenon of self-organization and self-determination.

Given that one of the most important determinants of person's *self-development* and *self-fulfillment* is his/her *attitude towards him/herself* (self-attitude), it is natural to assume, that personal potential realization is possible only if self-attitude, a level of aspiration and human life perspective are adequate. Self-attitude is also a very important indicator of person's psychological well-being; and professional future that is represented as potentially possible one performs the functions of subjective regulation and influences life choices, actions and activities, a vector of personal and professional development.

The author fully shares the views of the representatives of Uznadze's school where person's attitude toward him/herself is defined as orientation formation. At this approach, a conceptual model of self-attitude as social attitude was mostly elaborated by Сарджвеладзе (1989), who introduced a concept of "self-attitude" into science as a special concept, classifying it as a subclass of social attitudes. Self-attitude means the relations of a person with a need to the situation of its fulfillment that is directed at him/herself (Сарджвеладзе, 1989).

Personal self-attitude is also understood as a complex cognitive-affective formation, the maturity of which is determined by the quality of mutual relationships and a degree of the coherence of its components. As a basic formation, personal self-attitude plays an important role in the system of self-regulation and self-determination. Self-attitude is closely related to other persons' characteristics, especially will. It influences the formation of content, structure and forms of appearance of all personal psychological characteristics (Столин, 1982).

In the second half of the 20th century motivational concepts of Rotter (1982), Хекхаузен (2003), Atkinson, (1964), McClelland (Макклелланд, 2007) were developed, which are characterized by the recognition of the leading role of consciousness in the determination of human behaviour. Cognitive theories of motivation led to an introduction to scientific usage of new motivational concepts: social needs, life goals, cognitive factors, cognitive dissonance, values, expectations of success, fear of failure, and a level of aspiration.

The personal level of mental reflection is represented by sense bearing formations that function as motivational and semantic determination of activity. Through his/her own activities a person integrates various aspects of the activity structure along its deployment. Personal activity is also the cause of the enrichment of motives, aims and means of activity.

Mutual influence of activity types of a person as a biological individual, a social individual and a personality were set out in the levelled concept of mental health proposed by Братусь (1981). According to this concept, sense bearing formations include sense forming motives, sense bearing attitudes and spontaneous personal sense bearing emotional pains. Therefore, personal self-identity through *self-organization* is possible only in the case when the main activities included into the life cycle are determined by sense forming motives, which makes life truly alive and creative. Otherwise, adaptation to the circumstances of life, under external motives and agents, make a person organize his/her activity in such a way that his/her life becomes impersonal, run on the path of *determinism*.

Method. To determine the role of students' personality structure for the development of their desire for self-fulfillment, the test-questionnaire on personality self-attitude of Stolin, & Pantylyeyev (cited in Пантилеев, 1993) was used as well as the self-actualization test (Фетискин, Козлов, & Мануйлов, 2005) of Shostrom (adapted by Aleshin, Gozman, Zahika & Kroza), the method "Lifestyle Index" (LI) of Kellermann, Plutchik, Purpose-in-Life Test (Практическая психодиагностика: методики и тесты, 2002), Crumbaugh & Maholick (adapted by Леонтьев, 1992).

The total number of subjects comprised 345 students of several universities of Kyiv.

Results and Discussion. Analyzing the indicators, the author has noted that the most of the students have typical average (50-74 points) and high levels (more than 74 points). The data are presented in the Table 1.

Although, the most of the studied students are characterized by high indicators of self-attitude in general, but the self-attitude structures are different with different expressiveness of its component, i.e. it is supported by different ratio of self-attitude indicators.

Table 1. Average indicators of students' self-attitude

	Self-attitude in general	Self-esteem	Self-sympathy	Expectations of positive attitude from others	Self-interest	Self-confidence	Expectations of others' attitude	Self-acceptance	Self-consistency	Self accusation	Self-interest	Self-understanding
\bar{X}	75,2	60,8	60,9	54,6	74,1	56,9	57,7	68,2	57,5	52,2	65,4	58,6
Md	80,0	66,5	69,6	53,0	82,3	65,6	59,2	68,3	60,4	48,2	70,0	68,6
Mo	85,0	58,6 ^a	70	72,3	92,3	65,6	80	70,6 ^a	60,3	27,6	80,0	43,3
S_x	19,9	25,3	23,4	28,2	26,1	26,2	27,2	25,5	23,3	27,4	27,8	25,8

Note \bar{X} – average value; Md – median; Mo – mode; S_x – standard deviation; a – there are several modes, the lowest one was shown

Values of “self-esteem” and “self-sympathy” indicators show the studied students' ability to control their own lives and to be self-consistent, students believe in their capabilities and skills, have positive self-estimation and approve themselves as a whole. However, the “expectations of positive attitudes from others” indicator has low values. According to the views of Столин (1983), in the normally functioning self-attitude system, lowering of any emotional component can be compensated by increasing of another component, so the self-attitude in general remains at a high level (Столин, 1983). Therefore, self-estimation is a reflection of the integration of a certain sense structure without conflicts. During adequate self-attitude formation, personal experience plays a dominant role in comparison with external assessment. However, high adequate external evaluation, in its turn, also has impact on self-estimation.

The students have a fairly high level of “self-interest”, which is a measure of interest in their own thoughts and feelings and confidence in the fact that they are interesting to others.

“Self-acceptance”, “self-consistence” and “self-understanding” are characterized by high values that can be considered as the indicators of personal maturity, ability to control own activities by themselves. However, there is also a significant number of people with low levels of self-attitude in general and of its components. This part of the tested people may have some difficulties with self-determination of own activities, with awareness of life prospects and of own capabilities.

Describing the data in Table 2, the author has noted, that approximately 60% of the subjects have a high level of self-attitude in general. Average self-attitude in general is characteristic for 30% (on average), indicating a relatively high level of self-esteem and self-interest, satisfaction with their own “Self”, and ability to learn and master their profession. Somewhat lower level of self-sympathy, especially for the first-year students, may be a result

of increased levels of anxiety and self-doubt that can be explained by adaptation to training. In general, only the indicator of self-interest and expectations of others' attitudes vary significantly with time ($p < 0,001$).

Table 2. Expressiveness of student's self-attitude (%) at different academic years

Level	Year	Self-attitude in general	Self-esteem	Self-sympathy	Expectations of positive attitude from others	Self-interest
high	I	57	42	29	14	35
	IV,V	67	44	38	14	54
average	I	29	29	25	32	29
	IV,V	21	25	33	40	19
low	I	14	29	46	54	36
	IV,V	12	31	29	46	27

A tendency can be viewed for self-attitude: the following indicators of self-attitude are lower: "expectations of others' attitude", "self-understanding" and "expectations of positive attitude from others".

Analyzing the relationship between indicators of self-attitude, we found out the following:

- Self-attitude in general has a high inverse correlation with attitude to the future (-0.90), to group-mates (-0.68);
- Self-esteem correlates with attitude to the future (-0.76), to senior people (-0.64), to group-mates (-0.67);
- Self-sympathy correlates with attitude toward group-mates (-0.74), with a feeling of guilt (-0.76);
- Self-interest correlates with attitude to the future (-0.81), to group-mates (-0.65);
- Self-acceptance is related with attitude to the future (-0.89), to sexual relationships (-0.80), to mother (-0.82);
- Self-consistency correlates with attitudes towards persons of the opposite sex (-0.62);
- Self-accusation is related with the attitude to him/herself (0.82), with attitude to subordinates (0.63), to senior people (0.62), to the past (0.70), to own family (0.63), with a feeling of guilt (0.86);
- Self-interest correlates with the attitude to the future (-0.92), to group-mates (-0.92);
- Self-understanding correlates with attitude to own father (-0.65), to the future (-0.71), to own family (-0.76), to group-mates (-0.76).

Thus, the attitude to the future and to group-mates has the greatest influence in the overall structure of self-attitude, which is, obviously, characteristic to the period of students' life.

Self-attitude, as a sense bearing formation, has an eternal importance for a person. Every change in it is related to interpersonal conflicts, accompanied by an experience of menace of destruction to self-identity. Therefore, it is actively protected and maintained by the person.

The study of psychological nature of self-attitude protection, the identification of factors contributing to its style, of personal resources that allow overcoming of protective behavior is a prerequisite for the study of patterns of becoming of a mature personality, who is capable of self-realization.

The proposed technique "Lifestyle Index" (LI) of Kellermann & Plutchik (Практическая психодиагностика: методики и тесты, 2002) allowed us to identify psychological defence mechanisms for self-attitude that affect adaptation strategies, interpersonal relationships, level

of demands, life perspectives, goals, etc. Dominant lifestyle identification also contributes to identification of personality traits that are formed under influence of the defined mechanisms.

Expressiveness of psychological defence mechanisms (PDM) of the students is shown in Table 3. Indicators are considered as unexpressed if their values are less than 40, and they are quite expressed if their values are higher than 50.

Table 3. Average indicators of psychological defence mechanisms (%) for the students

	Denial	Repression	Regression	Compensation	Projection	Substitution	Sour grapes mechanism	Reaction formation
\bar{X}	74,3	63,1	58,9	68,5	59,7	51,5	54,2	60,5
Md	64	53	41	52	52	49	59	46
Mo	70 ^a	63	50	58	60	67	59	51
S_x	23,2	26,3	23,7	18,5	32,6	24,8	25,7	26,5

The above data show that prevailing PDM differ markedly for the selected groups. Students are characterized by broad spectrum protection mechanisms: “denial of reality”, “repression”, “projection”, which are “primitive” defences, and “compensation” and “sour grapes mechanism”, which are “mature”, constructive mechanisms to protect individual self-attitude.

For further analysis, the studied sample was split into three groups in terms of expressiveness of the integral indicators of self-attitude.

Analysis of correlations between dominant psychological defence mechanisms and self-attitude indicators at different levels shows the different types of personal integration.

If self-attitude has high levels of indicators, there are only few significant relationships with psychological defence mechanisms, and the correlation is mainly the inverse one. In particular, self-esteem correlates ($p < 0,001$) with regression (-0,25); expectation of positive attitude from others (0,22) and self-interest (-0,25), self-acceptance correlate with denial (0,23). Thus, in this case, self-attitude does not require special support.

If self-attitude has average expressiveness of indicators, such a level is associated with a significantly greater number of psychological defence mechanisms. Self-esteem is associated with regression (-0,26, $p < 0,001$); self-sympathy correlates with a wide range of defence mechanisms: regression (-0,21, $p < 0,05$), substitution (-0,32, $p < 0,001$), sour grapes mechanism (-0,22, $p < 0,05$), reaction formation (0,26, $p < 0,001$); expectation of positive attitudes from others correlates with compensation (-0,29, $p < 0,001$), projection (-0,21, $p < 0,05$), substitution (-0,27, $p < 0,001$), sour grapes mechanism (-0,22, $p < 0,05$); self-interest is related with repression (-0,26, $p < 0,001$), regression (-0,29, $p < 0,001$), substitution (-0,26, $p < 0,001$); self-consistency (self-guidance) is related with regression (-0,41, $p < 0,001$) and sour grapes mechanism (0,26, $p < 0,001$); self-accusation has positive correlation with compensation (0,4, $p < 0,001$) and substitution (0,26, $p < 0,001$); and also self-understanding correlates with compensation (-0,37, $p < 0,001$).

A low level of self-attitude is supported with such protection mechanisms ($p < 0,001$): self-esteem is related with regression (-0,76) and substitution (-0,32); expectations of positive attitudes from others correlate with compensation (-0,29) and substitution (-0,32); self-interest correlates with compensation (0,33) and sour grapes mechanism (0,32); it should be noted

that the activation of these mechanisms is important for the increase of self-interest; self-consistency correlates with regression (-0.49) and substitution (-0.5); self-accusation correlates with denial (0.32), repression (0.53), substitution (0.36); self-understanding is related with regression (-0.51), projection (0.35) and reaction formations (-0.29). Thus, we can see that the “contribution” into the *low level of self-attitude* is made mainly by regression, repression, projection, reaction formation, which can cause simplified behavior patterns, reducing of an aspiration level, of goals, persistence, and indifference emergence. Compensation and sour grapes mechanism, as it was found out, has positive importance for *self-attitude increase*.

Given that the positive person's attitude to him/herself is understood as a condition that contributes to self-realization; negative one is a condition that prevents self-fulfillment; and conflictive self-attitude can both facilitate and hinder self-realization (Степин & Аршинов, 1994), we analyzed the correlations of self-attitude indicators with the indexes of the self-actualization test.

At a high level of self-attitude, its indicators, such as self-esteem, self-sympathy, self-acceptance are positively related at significant levels (at $p < 0,001$) with the next scales of the self-actualization test:

- “competence over time” (the ability to perceive life holistically): coefficients are 0.28, 0.24, 0.37;
- “support” (0.25) (indicates the relative independence of people with high levels of self-attitude during their actions, desire to be guided by own life goals and principles);
- “value orientations” (0.28, 0.34) (the studied students share values specific to the personality who is being self-actualized);
- “sensitivity to oneself” (0.26) (determines the extent of awareness and reflection of own needs and feelings);
- “aggression acceptance” (0.28) and “sociability” (0.28) (factors mean a person's ability to accept own irritability, anger and aggression as normal expressions of human nature and describe an ability to quickly establish contacts with other people).

At an average level of self-attitude, indicators are related in the next form:

- as in the previous case, self-esteem and self-sympathy are positively related (0.44, 0.5) with competence over time; but in this case, the latter indicator correlates with the expectations of positive attitudes from others (0.26), i.e. external evaluations of others are important to maintain an adequate level of self-esteem; in addition, competence over time correlates negatively (-0.34) with self-accusation;
- self-acceptance has positive relations (0.26) with the “support” scale;
- self-esteem and self-acceptance are related positively (0.28, 0.35) with value orientations, so the studied students also share the values of self-development;
- self-sympathy and self-acceptance correlate positively (0.23) with the flexibility of behavior, which is related negatively (-0.27) with self-attitude in general;
- self-acceptance correlates strongly enough (0.49) with spontaneity, which can lead to not fully considerate behavior;
- self-interest correlates with ideas about human nature (0.25);
- aggression acceptance correlates with self-sympathy (-0.23) and self-accusation (0.32); sociability correlates with self-sympathy (-0.24), which may contribute to the work of compensatory mechanisms and feelings of guilt, it is evidenced by the explanation of correlation between creativity and expectations of positive attitude (-0.2) and self-accusation (0.27).

At a low level of self-attitude, the following correlations were found out:

- competence over time with self-sympathy (0.22) and expectation of positive attitude (0.32);

- support with self-esteem (-0.42) and self-interests (-0.23);
- value orientations with self-esteem (0.31), expectation of positive attitude (0.35) ;
- sensitivity towards oneself with self-sympathy (-0.28), expectation of positive attitude (0.4), self-acceptance (-0.35) ;
- ideas on the human nature with self-acceptance (-0.45);
- synergy, which means person's ability of holistic perception of the world, with self-esteem (0.29) , self-consistency (0.23) , self-accusation (-0.42);
- cognitive needs with the expectation of positive attitudes from others (0.43), self-acceptance (0.24), self-understanding (0.28);
- creativity with self-esteem (0.41), expectation of positive attitudes from others (0.24), self-understanding (0.35) .

Thus, it is clear that the person's internal resources, values of self-fulfillment, optimal interpersonal interaction, holistic self-perception and perception of integrity of own life course, capacity for reflection and synergy are really important for maintaining of a high level of self-attitude.

The addition of the self-attitude development analysis with the principles of holism and self-organization allow us to make the conclusion not only on the importance of an active personal position, but also on the necessity to unite person's individual peculiarities with norms and values accepted in the society.

Analysis of differences of purposes-in-life (PIL) for different self-attitude levels shows that, at high integral assessment of self-attitude, there are significant positive correlations ($p < 0,001$) with all scales of the PIL test. In particular, high levels of self-esteem and self-confidence correlate with the presence of long-term life goals (0.35), emotional richness of life processes (0.34), sufficient freedom of choice to build own life in accordance with own goals and ideas about its senses (0.25), the belief that a person can control own life and he/she is free to make decisions and implement them (0.35). At a low integral assessment of self-attitude, there is rather strong positive relationship between the indicators of all purposes-in-life test scales and scales of self-esteem and expectations of positive attitudes from other. Given the low values of the latter scales, it means, respectively, the absence or low levels of purposes-in-life orientations.

Thus, a comparative analysis of the study data with the method of Stolin & Pantylyeyev indicates that the system of person's ideas about him/herself tend implicitly to maintaining of the integrity and harmony, which is confirmed by many scientists, especially Erickson (cited in Пантилеев, 1993). Therefore, as it was shown above, at high levels of self-attitude, there are quite close and stable relationships between individual parameters of person's attitude system, its wholeness and completeness, which are united adequately with a higher degree of self-awareness and desire to plan for the future, with purposes for the future, ability to determine the path of self-development. At low levels of awareness and differentiation of ideas about themselves, a tendency exists to low self-esteem, to self-accusation, inconsistent planning and uncertainty regarding the future.

Conclusions. The obtained results allow us to determine several features of mediation between self-determining processes and personal characteristics.

1. A negative self-attitude and high-level of expectations of positive attitudes from others together with negativism towards others, which manifests itself in psychological defence mechanisms such as projection, denial or reaction formations, leads to several options, depending on the severity of characteristics:
 - a) Students with high self-accusation, which perceive and present themselves as doomed to suffer and believe in own helplessness and inability to confront the circumstances, have low self-efficiency, resulting in pessimistic and uncertain future perception leading to feeling of life pointlessness.

- b) Students with high self-consistency, manifested in the desire to control circumstances through self-guideline, that provides a sense of security, are characterized by perceptions of conflict ideas about themselves, manifested in a severe need of protection and assistance from others.
 - c) Students with low self-esteem, self-acceptance, self-understanding, and high levels of self-sympathy and self-guideline tend to deny the reality, which is characterized by pronounced negativism, hostility in relations with others and the consumer, pragmatic, selfish behavior strategies.
2. If positive self-attitude is combined with self-respect, self-acceptance, self-interest, self-guideline and self-confidence, there is a positive self-concept of personality, characterized by high flexibility and adaptability. Students of this type perceive optimistically their future; they are characterized by optimal coordination between real and ideal conceptions on themselves, which promotes self-development and self-realization. They perceive their future optimistically and associate it with the success in school and successful careers.
 3. It is possible to distinguish two levels in the personality holistic self-development, which in turn mediate personal motivational strategies, self-organization for learning and self-realization.

The first level is mediated by value and individual translators; the influence of stabilization tendencies in this case is focused on personal fulfillment, on a vision of the own life sense in self-development, on the awareness of own identity, uniqueness and value to others.

The second level is aimed at a subjective sense of person's psychological well-being and at the support of mental health; it activates synergistic potential, associated with the general laws of psychological life.

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PERSONAL MODUS OF FUTURE SPECIALISTS' SELF-REALIZATION

Summary

Liudmyla Serdiuk

Open International University of Human Development "Ukraine", Kyiv, Ukraine

The paper discusses the features of personal organization and mediation of self-realization with personal characteristics at different levels of the integral indicators of self-attitude. It was found out that implementation of personal potential is possible only at adequate self-attitude, a level of aspiration and person's life perspective.

A person, as a holistic psychological system, is not in opposition to the objective world, but in union with it, with the world part that has importance, meaning, and value for the person. Thus, a personality of a student, who is integrated into the educational environment, the main value of which is, as it is known, self-development and self-realization, depends entirely on the values of his/her social community, which he/she identifies own personality with.

The aim of the paper is to substantiate and reveal possible variants of the interaction of a holistic "personality" system with its other components: attitude toward others and self-estimation, a desire for self-fulfillment and factors that help to transit virtual states inherent in an integrated system "personality- social environment" into actual behavior.

The object of the study is personal self-realization as a phenomenon of self-organization and self-determination.

Method. To determine the role of students' personality structure for the development of their desire for self-fulfillment, the test-questionnaire on personality self-attitude of Stolin, Pantylyeyev (cited in Пантеев, 1993) was used as well as the self-actualization test (Фетискин, Козлов & Мануйлов, 2005) of Shostrom (adapted by Aleshin, Gozman, Zahika, & Kroza), the method "Lifestyle Index" (LI) of Kellermann, Plutchik, Purpose-in-Life Test (Практическая психодиагностика: методики и тесты, 2002) of Crumbaugh & Maholick (adapted by Leontiev (Леонтьев, 1992).

The total number of the participants comprised 345 students of several universities of Kyiv.

After the research the main conclusions were carried out: the obtained results allow us to determine several features of mediation between self-determining processes and personal characteristics.

1. A negative self-attitude and high-level of expectations of positive attitudes from others together with negativism towards others, which manifests itself in psychological defense mechanisms such as projection, denial or reaction formations, leads to several options, depending on the severity of characteristics:
 - a) Students with high self-accusation, which perceive and present themselves as doomed to suffer and believe in own helplessness and inability to confront the circumstances, have low self-efficiency, resulting in pessimistic and uncertain future perception leading to feeling of life pointlessness.
 - b) Students with high self-consistency, manifested in the desire to control circumstances through self-guideline, that provides a sense of security, are characterized by perceptions of conflict ideas about themselves, manifested in a severe need of protection and assistance from others.
 - c) Students with low self-esteem, self-acceptance, self-understanding, and high levels of self-sympathy and self-guideline tend to deny the reality, which is characterized by pronounced negativism, hostility in relations with others and the consumer, pragmatic, selfish behavior strategies.
2. If positive self-attitude is combined with self-respect, self-acceptance, self-interest, self-guideline and self-confidence, there is a positive self-concept of personality, characterized

by high flexibility and adaptability. Students of this type perceive optimistically their future; they are characterized by optimal coordination between real and ideal conceptions on themselves, which promotes self-development and self-realization. They perceive their future optimistically and associate it with the success in school and successful careers.

3. It is possible to distinguish two levels in the personality holistic self-development, which in turn mediate personal motivational strategies, self-organization for learning and self-realization.

The first level is mediated by value and individual translators; the influence of stabilization tendencies in this case is focused on personal fulfillment, on a vision of the own life sense in self-development, on the awareness of own identity, uniqueness and value to others.

The second level is aimed at a subjective sense of person's psychological well-being and at the support of mental health; it activates synergistic potential, associated with the general laws of psychological life.

THE STRUCTURE OF AN ONLINE ASSESSMENT OF SCIENCE AND SOCIAL STUDIES CONTENT: TESTING OPTIONAL FORMATS OF A GENERAL OUTCOME MEASURE

Paul Mooney, Kevin S. McCarter, Robert J. Russo, Danielle L. Blackwood
Louisiana State University, USA

Abstract

Research¹ questions addressed the structure of an online form of content-focused general outcome measurement known as critical content monitoring. The assessment tool is designed to serve as an accurate and efficient measure learning performance and progress in science and social studies classes. Scores from single administrations of critical content monitoring probes that varied in content and length were correlated with results from a statewide accountability content test for a sample of American fifth-grade students. The magnitude of correlation was moderate for probes that included a single content (i.e., social studies) or a mix of two subjects (i.e., social studies and science). Comparable correlations were reported for probes that featured reduced time or increased questions. Limitations and research implications are discussed.

Key Words: *Content Area Assessment, Formative Assessment, Technology*

The Structure of an Online Assessment of Science and Social Studies Content: Testing Optional Formats of a General Outcome Measure

Improving teaching practices as a means of increasing student outcomes for all and particularly struggling learners has been an international desire for decades. One area of educational stakeholder emphasis has been on the use of in-class assessments that are designed to inform teachers' next instructional steps. In his book *Embedded Formative Assessment*, Wiliam (2011) suggested that "attention to minute-by-minute and day-to-day formative assessment is likely to have the biggest impact on student outcomes" (p. 27). Positive and meaningful impact on the outcomes of students with or at risk for disabilities is critical to the future academic lives of this population given the academic delays that they face. The use of structured formative assessment has a strong evidence base to support its use by teachers and school systems (Stecker, Fuchs, & Fuchs, 2005). The present study focused on the efficacy of various forms of a structured formative assessment measure that are designed to measure performance and progress in the natural and social sciences. Specifically, the study addressed research questions related to different structural formats of critical content monitoring (Mooney, McCarter, Russo, & Blackwood, 2013) that vary according to the number of questions, length, and content make-up of a single probe.

Critical Content Monitoring

On the formative assessment continuum (Dorn, 2010), critical content monitoring fits on the formal or structured end as a frequent quantitative measure of specific skills. It is an

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example of general outcome measurement (Fuchs & Deno, 1991) in that it targets an entire curriculum domain (e.g., 5th grade science) and develops equivalent tests that sample from the whole domain and indicate end-of-year skill or subject competence. In the measure's present form, upper elementary or middle school students read definitions of key grade-level science or social studies vocabulary at a secure learning management system link and are asked to choose the correct term name from a list of choices. Students are allowed up to 5 minutes to complete as many of the 20 questions as they are able. At the completion of the online quiz, students are provided their total score in number and visual (i.e., line graph) form. If a student has completed multiple probes, then the student views her or his scoring history.

One of eight curriculum-based measures described in the literature, critical content monitoring is an online adaptation of vocabulary matching (Espin & Deno, 1994-1995), a general outcome measure that has a body of technical adequacy findings supporting its use as a measure of content area performance and progress across grades (Espin, Busch, Lembke, Hampton, Seo, & Zukowski, 2013; Espin, Shin, & Busch, 2005; Mooney, McCarter, Schraven, & Callicoate, 2013). One, moderate (.3-.7) to strong (.7-1.0; Reynolds, Livingston, & Wilson, 2009) correlations have been reported with standardized tests of achievement across multiple research teams (e.g., Espin, Busch, Shin, & Kruschwitz, 2001). Two, administrations of equivalent forms of the instrument over time have demonstrated that multiple versions are sensitive to student learning over time (e.g., Borsuk, 2010). Three, direct comparisons of vocabulary matching with other curriculum-based measures have demonstrated stronger magnitudes of correlations for vocabulary matching (Mooney, McCarter, Schraven, et al., 2013).

The promising efficacy findings relative to vocabulary matching are tempered by the reality that the general outcome measure of content learning still remains largely a researcher-driven technology two decades following its introduction. This stands in stark contrast to the wide-spread application of the one-minute oral reading fluency measure for screening and progress-monitoring purposes. A number of explanations have been posited for the lack of scaling of vocabulary matching. These reasons include the labor-intensiveness of vocabulary matching application as well as possible difficulties in interpreting some of the test score data (e.g., Mooney, McCarter, Schraven, et al., 2013).

One way to address potential barriers to broader use of content-focused screening and progress monitoring has been to incorporate technology into instructional practice. Possible applications include online progress-monitoring and/or instructional management systems and use of computer adaptive testing. In the area of curriculum-based assessment, computer technology has allowed for large-group administration of instruments, automatic test scoring, and real-time reporting of scores (Fuchs & Fuchs, 2001; Stecker et al., 2005). In the areas of math and science, the use of technology-enhanced formative evaluation systems have evidenced positive impacts on classroom grades and state accountability test results (Burns, Klingbeil, & Ysseldyke, 2010; Vannest, Parker, & Dyer, 2011; Ysseldyke & Bolt, 2007). Computer adaptive testing has been suggested as an effective tool for universal screening, with Ball and Christ (2012) describing research evidencing strong overall decision accuracy and individual skill information for computer adaptive reading tests.

Critical content monitoring is an online adaptation of vocabulary matching and conceptualized as a general outcome measure of content area learning. The target curriculum is an entire body or domain of academic language, with academic words assumed to be proxies for academic content learning. Academic language, defined as "the specialized language, both oral and written, of academic settings that facilitates communication and thinking about disciplinary content" (Nagy & Townsend, 2012, p. 92), is targeted for two reasons. First, as Nagy and Townsend (2012) point out, its proficiency allows students to better access

meaning from academic text and discussion, achieve in school, and even act like scientists and historians. Alexander (n.d.) has equated vocabulary to communicative currency. Second, from an intervention perspective, academic language is an alterable variable (Bloom, 1980) that is particularly pertinent to struggling learners, who Baker, Kame'enui, and Simonsen (2007) indicate generally know fewer words at instruction's inception and learn fewer words over the course of instruction in comparison to regularly achieving peers. Academic vocabulary development provides struggling learners and those who teach them the chance to both build background knowledge and promote active engagement in the learning environment. The instructional purposes, materials, and practices that derive from academic vocabulary application also lend themselves to meaningful differentiation for the diverse populations that comprise secondary school learning environments.

Mooney, McCarter, Russo, et al. (2013) reported findings on the initial application of critical content monitoring, with research addressing two primary technical adequacy questions related to the static score. The first query related to the magnitude of the correlations between scores from the online assessment and a statewide accountability subject test. Twenty separate online science probes were completed in close proximity to each other by a convenience sample of generally high-performing students, with scores then correlated with the standard score of the statewide science accountability test that was administered the following week. Results indicated moderate correlations for the 20 probes, with single correlations ranging from .36 to .55 and a pooled estimate for participants that completed all 20 probes determined to be .45 (Mooney, McCarter, Russo, et al., 2013). Correlation magnitudes between the online science probe and state accountability test were lower than those reported in the vocabulary matching literature across both science and social studies content (e.g., Espin et al., 2013).

The second research question addressed the equivalence of the probes as developed. Twenty probes were administered over a 10-day time frame in order to determine whether there were any differences in the scores of probes that were created using identical processes. The equivalence of probe scores is believed to be a critical feature of general outcome measures designated as indexes of growth (Petscher, Cummings, Biancarosa, & Fien, 2013). If test scores from individual probes are not determined to be equivalent, then it may be difficult to ascertain if changes in scores are the result of learning alone or some combination of variables which may or may not include student learning. Results of comparisons of the 20 online probes indicated that while descriptive differences in the correlations proved statistically equivalent, there were statistically significant differences across the online probe's mean scores (Mooney, McCarter, Russo, et al., 2013). In fact, the pattern of scores indicated increases over the 10 days of testing, suggesting evidence of student learning of some form. Findings of non-equivalence in scoring for probes previously assumed to be parallel were similar to results reported in the general outcome measurement literature related to reading-CBM (e.g., Ardoin, Williams, Christ, Klubnik, & Wellborn, 2010).

Object of the research – to reveal the structure of an online form of content-focused general outcome measurement as critical content monitoring.

Specifically, the study addressed research questions related to different structural formats of critical content monitoring (Mooney, McCarter, Russo, & Blackwood, 2013) that vary according to the number of questions, length, and content make-up of a single probe.

Research Rationale and Questions

To determine whether data from curriculum-based measures of student performance effectively and meaningfully impact data-based decision making, Deno and Fuchs (1987) proposed a framework that encompassed a series of technical adequacy, instructional effectiveness, and logistical feasibility questions targeting issues of what to measure, how to measure, and how to use data. The initial critical content monitoring findings fell largely

in the technical adequacy section of the Deno and Fuchs (1987) matrix, with their focus on validity and reliability issues for single comparisons. These initial findings generated a number of questions that prompted some logistical feasibility questions that provided a rationale for the present inquiry.

In describing logistical feasibility, Deno and Fuchs (1987) noted that measurement systems are best served when they reduce teacher and student time in measurement. Of primary concern in the present inquiry was the structure of the probe within the context of validity research. The first question related to subject matter. Previously, science vocabulary populated the probe and was evaluated for its association with a state accountability test standard score. The present research evaluated a social studies-oriented probe and accompanying predictor-criterion relationship. A second question related to subject matter mix. In the content area learning literature, research has focused on single grade-level subject areas. As a result, science and social studies content are assessed separately and the time associated with content assessment then doubled when both subjects are included in assessment systems. One result of an increase in testing time is an accompanying reduction in time allocated to and available for instruction. The present study evaluated the criterion validity of a single probe that included both science and social studies vocabulary within the traditional 5-minute time frame.

A third question also addressed assessment efficiency and derived from a qualitative review of participant performance in Mooney, McCarter, Russo, et al. (2013). That is, while participants were allowed up to 5 minutes to complete the science focused online probes, they uniformly completed the process in less than 3 minutes. In an effort to determine whether the length of administration time could be varied without impacting the relationship to a meaningful criterion, researchers evaluated the administration of probes that differed in terms of time allowed. A final structure-oriented query addressed the number of questions in a probe. In response to findings indicating weaker criterion validity relationships for critical content monitoring probes in comparison to vocabulary matching measures, the impact of doubling the number of questions was evaluated in terms of its relationship to a state accountability test result. Salvia, Ysseldyke, and Bolt (2007) indicated that test reliability interpretations generally are strengthened by including more questions.

Method

Participants and Setting

The Institutional Review Board-approved study involved the same population of students in Mooney, McCarter, Russo, et al. (2013). Participants were fifth-graders ($N = 106$) in a single public K-12 school in south Louisiana. As a whole, participants were 58 percent female and 88 percent Caucasian. All participants paid full price for school lunches. No students were verified with exceptionalities. As a group, the students demonstrated success in school, with the median and most commonly reported quarter grade in the A- range. All but one of the participants (99%) scored at the basic level of proficiency on both science and social studies tests. Participants were taught in a departmentalized setting. Testing took place during science class.

As detailed in Mooney, McCarter, Russo et al. (2013), the sample was chosen because of the timing and time-intensive nature of the initial pilot research. That is, approximately 15 minutes of instructional time was utilized daily over 10 successive days in the two weeks before statewide accountability testing in order to collect the data necessary to answer the study's proposed research questions. It was accepted by the researchers that the possible negative impact of taking instructional time away from students and the teacher for this generally high-achieving sample outweighed legitimate concerns related to the generalizability of results to other public-school student populations. With the same sample of students having taken part in the present research, caution, then, is warranted in evaluating the study's results.

Measures

Two measures were compared in the present study: (a) different forms of critical content monitoring for fifth-grade content; and (b) subject tests of the criterion-referenced *integrated* Louisiana Educational Assessment Program (*iLEAP*; LDE, n.d., a).

Critical content monitoring. The content-focused general outcome measure described earlier evolved from procedures previously outlined in Espin et al.(2001). It is one of two online content-focused assessment systems that have been described in the literature, along with key vocabulary progress monitoring (Vannest et al., 2011). Critical content monitoring probes were developed using a curriculum sampling approach (Fuchs, 2004). Terms in each probe were randomly selected from the full body of content terms by unit, with each probe including terms from each unit. The number of terms per unit was determined by calculating the proportion of the year's curriculum that was devoted to each unit in the state pacing guide and then multiplying that proportion by the number of questions in each probe. Adjustments were made to the number of terms per unit if the total number of terms for all of the units did not add up to the probe question total. For the present study, assessment formats differed in the number of questions included per probe, the course content in each probe, and the length of administration. Terms and accompanying definitions were entered into an online learning management system (Moodle, n.d.) in a multiple-choice format. The Moodle system utilized in this project was extensively customized to evaluate student performance in real time and show trends in student performance graphically.

iLEAPgrade 5 criterion-referenced test. The stated purpose of *iLEAP* is measurement of students' proficiency in reaching Louisiana academic standards in English/language arts, math, science, and social studies (LDE, n.d., a). It has been Louisiana's statewide assessment for students in grades 3, 5, 6, 7, and 9. The science and social studies tests included multiple-choice questions, were untimed, and administered on different days. Fifth grade science content strands included science as inquiry, physical science, life science, earth and space science, and science and the environment, with test questions addressing all five strands. Social studies content strands included geography, civics, economics, and history, with test questions addressing only the geography and history strands (LDE, n.d., a). Achievement level descriptors were unsatisfactory, approaching basic, basic, mastery, and advanced. Students scoring at or above the basic level were considered to have passed the test. Technical adequacy data for the *iLEAP* fifth grade tests were accessed from the LDE website. Cronbach's alpha levels of 0.85 for science and 0.82 for social studies were reported as reliability evidence of the 2010 test's internal consistency (LDE, n.d., b). State-provided validity data were described in terms of a content validity process (LDE, n.d., b). The correlation between the fifth-grade *iLEAP* science test and the science test from the abbreviated online Stanford Achievement Test Series (10th ed., Pearson Education, n.d.) was .64 (Mooney, 2014).

Procedure

Participants were administered a number of different critical content monitoring forms over a five-day period in mid-May 2011, near the end of the school year and about six weeks after statewide accountability testing. Probes differed in content, number of questions, and/or length of administration. Testing followed procedures similar to those described in Mooney, McCarter, Schraven et al. (2013). That is, the order of presentation of probes for each of 4 fifth-grade sections was chosen through random selection without replacement in order to address possible order effects. Students logged in to the secure Moodle site using an individual login and password. The teacher verbally guided students to the site first and then the actual probe. After delivering a standard instruction, students were expected to access the probe and answer the questions within the time limit.

Probe scores were accessed from the online site by the first author and exported in the form of individual Excel files once the testing process was complete. One Excel file included all final scores for participants and was used to complete criterion-related validity analyses. Student demographic and statewide accountability test data were the same as those summarized in Mooney, McCarter, Russo, et al. (2013). Because the probes were computer scored, no inter scorer reliability actions were formally taken for the online test scores beyond a double checking of the entry of the questions into the online system to ensure that the right choice accompanied each stem.

Data Analysis

Across the four questions, correlation analysis was used to quantify the linear relationship between the various critical content monitoring forms and the statewide content tests. Point estimates and 95% confidence interval (CI) estimates of the true, unknown correlations were computed from the data. Confidence intervals were used to test whether a significant linear relationship existed between variables, such that if the respective CI estimate did not include zero then it was concluded that there existed a linear relationship.

Results

Question 1: Social Studies

Table 1 provides means, SDs, correlations, and 95% CI estimates concerning critical content monitoring probes with social studies content. In descriptive terms, the correlation between scores of the traditional (i.e., 5 minute) critical content monitoring and *iLEAP* social studies test was moderate in magnitude [i.e., .67 (95% CI .55, .77)].

Question 2: Mixed Content

Tables 1 and 2 provide means, SDs, correlations, and 95% CI estimates for two forms of critical content monitoring probes with mixed content. One form was 5 minutes in length and comprised of 20 questions that included half-social studies vocabulary and half-science terms that were introduced in alternating fashion. A second form used the 50/50 content split but was 3 minutes and 40 questions in length. For social studies and science, correlations associated with scores from the 5-minute probe were descriptively greater in magnitude than those from the 3-minute, 40-question probe.

Question 3: Reduced Time

Table 2 provides the mean, SD, correlation, and 95% CI estimate for a 3-minute critical content monitoring probe of science content. The correlation with *iLEAP* science was moderate in magnitude and descriptively comparable to the probe-*iLEAP* correlation for the traditional 5-minute critical content monitoring probe.

Question 4: Increased Questions

Table 2 also provides the mean, SD, correlation, and 95% CI estimate for a 40-question critical content monitoring probe of science content. The correlation with *iLEAP* science was moderate in magnitude and descriptively smaller than the probe-*iLEAP* correlation for the traditional 5-minute critical content monitoring probe.

Discussion

In extending initial critical content monitoring validity research, the present findings set the stage for some interesting implementation possibilities moving forward. Answers to the four research questions will be summarized in relationship to the larger content area general outcome measurement literature prior to a discussion of limitations and implications.

All of the study's research questions focused, in some manner, on the structure of the critical content monitoring probe. The first question addressed outcomes of a change in content focus of a 5-minute probe from science to social studies, with results indicating that the magnitude of the linear relationship with a state content test criterion increased in that

circumstance. The correlation of .67 (95% CI .55, .77) was moderate in magnitude (Reynolds et al., 2009) and descriptively larger than the .54 correlation for science reported in the present study (see Table 2) and the range of correlations (i.e., .36 to .55; pooled mean = .45) reported in Mooney, McCarter, Russo, et al. (2013). Moreover, the linear relationship between the social studies probe and test scores was comparable to correlations with meaningful criterion measures (e.g., Espin et al., 2001) reported in the vocabulary matching literature.

The second question also addressed social studies content but within the context of a mix of social studies and science content within a single probe. Correlations with a state test for a 5-minute mixed probe were descriptively comparable (i.e., $r = .66$; 95% CI .53, .76) to those of a strict social studies content measure and, again, similar to vocabulary matching magnitudes in the literature. The pattern of descriptively larger correlations for social studies over science content was also evident for the 5-minute, mixed-content probe. However, that pattern was not maintained for the 3-minute, 40-question mixed-content probe.

The third question addressed a probe adjustment in which the time to complete the probe was decreased. Correlations between 3- and 5-minute probes and state tests in science content were generally comparable, with similar confidence intervals and mean scores as well. However, there were relatively large descriptive declines in the magnitude of correlations for reduced-time probes that also included mixed content and an increased number of questions (see Tables 1 and 2).

Table 1. Critical Content Monitoring (CCM) Means [with Standard Deviations (SD)], and Correlations* with State Social Studies Accountability Test [each with 95% Confidence Interval (CI)] in Fifth Grade

Probe	N	Mean	SD	95% CI	r	95% CI
CCM Traditional: Social Studies	102	14.3	3.1	[13.7, 14.9]	.67	[.55, .77]
CCM ½ Science/½ Social Studies Mix	100	16.3	2.8	[15.7, 16.8]	.66	[.53, .76]
CCM Science/Social Studies-40 Questions-3 Minutes	102	20.5	7.4	[19.0, 21.9]	.36	[.18, .52]

* $p < .01$.

Table 2. Critical Content Monitoring (CCM) Means [with Standard Deviations (SD)], and Correlations* with State Science Accountability Test [each with 95% Confidence Interval (CI)] in Fifth Grade

Probe	N	Mean	SD	95% CI	r	95% CI
CCM Traditional: Science	99	18.2	1.9	[17.8, 18.6]	.54	[.39, .67]
CCM Science-3 Minutes	101	17.8	2.5	[17.4, 18.3]	.53	[.37, .65]
CCM Science-40 Questions	100	29.6	4.4	[28.7, 30.4]	.47	[.30, .61]
CCM ½ Science/½ Social Studies Mix	100	16.3	2.8	[15.7, 16.8]	.62	[.48, .72]
CCM Science/Social Studies-40 Questions-3 Minutes	102	20.5	7.4	[19.0, 21.9]	.37	[.19, .53]

* $p < .01$.

For science and social studies content, correlational magnitudes were on the low – as opposed to the high – end of the moderate range. The final question addressed the impact of increasing the number of questions for a critical content monitoring probe. Findings for a 40-question science content probe indicated that the correlation magnitude was descriptively smaller than the correlation for the 20-question test. However, it did appear as though students were able to correctly answer more questions in the 5-minute time frame when faced with 40 questions versus 20 questions for the traditional science probe. Interestingly, when the content was mixed and the time-to-complete reduced, there were also a larger number of questions correctly answered than for a reduced-time science-only probe.

Limitations

All present findings must be interpreted in a context in which participants were generally high-achieving and not likely representative of most public school settings. That noted, there were legitimate reasons for seeking out this population of students and conducting the type of research described herein. A reader's confidence in the reported findings will no doubt be strengthened if there are comparable results given more diverse samples, particularly with populations including students with and/or at risk for high-incidence disabilities. Generalizability concerns have been commonly reported in the general outcome measurement literature for content area learning given that the bulk of research to date has involved single subjects and grade levels and predominantly been directed by researchers. A final limitation related to the timing of testing. Namely, the magnitude of correlations with *iLEAP* reported in the present study may have been impacted by the additional instruction that took place between the statewide testing and the second administration of critical content monitoring tests. Furthermore, with the testing taking place at the end of the school year, concerns could be raised about the effort of the students. However, correlations with the state test for an identical critical content monitoring science probe that was administered at state test time and again at the end of the school year were comparable, suggesting that similar effort was offered by participants.

Implications

While recognizing the identified generalizability concerns, researchers believe there are some implications emanating from the present findings and those in the content-focused general outcome measurement literature that are worthy of consideration for all students, including those with or at risk for disabilities. First, there continues to be the possibility that online assessment systems can be adapted for use in content classrooms and as general outcome measures of content learning. The present findings and those of Mooney, McCarter, Russo, et al. (2013) and Vannest et al. (2011) suggest that online technologies can be used to reliably and validly approximate student content learning performance and progress. That is, generally moderate correlations were reported for meaningful measures of performance in social studies and science – full range .25 to .83 – across studies; there was evidence of variable growth for participants across time (Vannest et al., 2011); and users reported successfully navigating and liking an online system (Mooney, McCarter, Russo, et al., 2013). Taken together with the successful applications of formative evaluation and computer adaptive systems in science, math, and reading (e.g., Ball & Christ, 2012; Burns et al., 2010), it appears that comprehensive, efficient, and effective screening and progress monitoring systems across secondary school settings are both possible and worthy of researcher, practitioner, and/or commercial entity resource allocation.

Second, it looks like alterations to the structure of online general outcome measures merit continued inquiry on empirical and practical grounds. Results of the present static score research indicate that it may be feasible to administer probes that mix science and social

studies content over 5 minutes or reduce to 3 minutes the time for a single subject probe. As a consequence, then, there can be greater coverage of content (i.e., two subjects versus one), more curriculum-based data for decision making of a potentially formative nature, and more allocated time for instruction that could be adjusted given the real-time access to data that online systems provide. While the focus of content area instruction should not be isolated to vocabulary teaching – and is not advocated through presentation of these results – there remains the opportunity to differentiate instruction based on the results of general outcome measures of content learning that incorporate academic vocabulary as proxies for learning. A strong body of research in vocabulary instruction incorporating explicit instruction, resource access, and immersion in rich environments exists to improve the achievement of struggling learners, including students with or at risk for high-incidence disabilities (Carlisle, Kenney, & Vereb, 2013).

Third, and related to progress monitoring, there may be reason to continue exploration of the increased number of question alteration in critical content monitoring probes. While there appeared to be a descriptive detrimental impact of doubling the number of questions to the probe on the static score correlation with a criterion, the fact that there were increased mean scores for both lengthened probes may prove beneficial in terms of future growth-oriented research. That is, larger final or subsequent probe mean scores for populations of students, when compared to beginning or earlier probe mean scores, could mean that the average weekly growth rates better approximate meaningful information to teachers and students than some of the rates previously reported in the vocabulary matching literature (e.g., Beyers, Lembke, & Curs, 2013; Mooney, McCarter, Schraven et al., 2013). With a 40-question probe and 36 weeks in a school year, it is at least possible to generate a 1-word-per-week growth rate. Teachers, students, parents, paraprofessionals, and administrators would likely better understand, appreciate, and believe that they could manipulate through goal setting and intervention a growth rate for a tangible ‘product’ (i.e., academic vocabulary) that was .5 or higher (as has been reported by Espin et al., 2005; 2013) than rates of .26 and lower (as reported in Beyers et al., 2013; Borsuk, 2010; and Mooney, McCarter, Schraven et al., 2013). With larger growth rates, learning as indicated in increasing general outcome measure scores could be observed in 1-2 week increments as opposed to 4-10 week time frames, making the data more meaningful to consumers. The utility of increasing the number of questions within the 5-minute time frame is deserving of continued inquiry.

Finally, and related to the previous two points on a larger scale, the online application of general outcome measurement using academic vocabulary in content classrooms provides interested stakeholders the chance to contribute to the development of a broad-based manageable and meaningful framework for documenting achievement in secondary schools. At its core, though developed for purposes of screening and progress monitoring and described as a proxy for learning in the tradition of general outcome measurement, critical content monitoring is an assessment of academic words. Nagy and Townsend (2012) describe words as tools for learning; Alexander (n.d.) refers to them more broadly as the currency of communication. And words, in multiple forms, are content in all secondary courses. While the assessment of words (or academic vocabulary in this case) has a storied history, Pearson, Hiebert, & Kamil (2007) argue that its research has been “grossly undernourished, both in its theoretical and practical aspects” (p. 282).

Vocabulary assessments can be categorized along three continua introduced by Read (2000): (a) in terms of construct, from discrete or by itself as a construct (e.g., vocabulary knowledge) to embedded within a larger construct (e.g., vocabulary’s contribution to comprehension); (b) in terms of the nature of what is to be learned, selective (or isolated) to comprehensive (or all-encompassing); and (c) in terms of the context of the question, context-dependent (or needing to use the context) to context-independent (or not needing context).

The authors contend that, as a general outcome measure of content learning, critical content monitoring is a vocabulary assessment measure that falls on the embedded, comprehensive, and context-independent ends of the three continua. That combination of design elements, including a proportional sampling from an entire content curriculum and the conceptualization of the test score as a vital sign of academic learning (Deno, 1985), may be the reason why a listing of words and definitions evidenced reasonably strong initial linear relationships to meaningful criteria, though limited to a single grade level, statewide test, and high-achieving sample.

Conclusion

A great deal more focused inquiry derived from the principles of general outcome measurement remains warranted and seems possible given the online capabilities that have been validated, to some degree, in the content area assessment literature. Online technologies will allow for the evaluation of different forms of question, for example, using stems that could target definitional or application or evaluative language. Online technologies might manipulate context-dependent versus context-independent delivery approaches. Online technologies might even investigate grade-level versus multi-grade-level content probes in an effort to make the system more efficient and less segregated. Research in this context may allow what has, to this point in time, been special education-driven inquiry, influenced by the framework of Deno and Fuchs (1987), to reach outside the general outcome measurement walls to inform and be further shaped by the larger theoretical and practical work taking place in vocabulary assessment and instruction.

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THE STRUCTURE OF AN ONLINE ASSESSMENT OF SCIENCE AND SOCIAL STUDIES CONTENT: TESTING OPTIONAL FORMATS OF A GENERAL OUTCOME MEASURE

Summary

Paul Mooney, Kevin S. McCarter, Robert J. Russo, Danielle L. Blackwood
Louisiana State University, USA

Improving teaching practices as a means of increasing student outcomes for all and particularly struggling learners has been an international desire for decades. One area of educational stakeholder emphasis has been on the use of in-class assessments that are designed to inform teachers' next instructional steps. In his book *Embedded Formative Assessment*, Wiliam (2011) suggested that "attention to minute-by-minute and day-to-day formative assessment is likely to have the biggest impact on student outcomes" (p. 27). Positive and meaningful impact on the outcomes of students with or at risk for disabilities is critical to the future academic lives of this population given the academic delays that they face. The use of structured formative assessment has a strong evidence base to support its use by teachers and school systems (Stecker, Fuchs, & Fuchs, 2005). The present study focused on the efficacy of various forms of a structured formative assessment measure that are designed to measure performance and progress in the natural and social sciences. **Object of the research** – to reveal the structure of an online form of content-focused general outcome measurement as critical content monitoring.

Specifically, the study addressed research questions related to different structural formats of critical content monitoring (Mooney, McCarter, Russo, & Blackwood, 2013) that vary according to the number of questions, length, and content make-up of a single probe. On the formative assessment continuum (Dorn, 2010), critical content monitoring fits on the formal or structured end as a frequent quantitative measure of specific skills. It is an example of general outcome measurement (Fuchs & Deno, 1991) in that it targets an entire curriculum domain (e.g., 5th grade science) and develops equivalent tests that sample from the whole domain and indicate end-of-year skill or subject competence. One way to address potential barriers to broader use of content-focused screening and progress monitoring has been to incorporate technology into instructional practice. Possible applications include online progress-monitoring and/or instructional management systems and use of computer adaptive testing. In the area of curriculum-based assessment, computer technology has allowed for large-group administration of instruments, automatic test scoring, and real-time reporting of scores (Fuchs & Fuchs, 2001; Stecker et al., 2005).

Critical content monitoring is an online adaptation of vocabulary matching and conceptualized as a general outcome measure of content area learning. The target curriculum is an entire body or domain of academic language, with academic words assumed to be proxies for academic content learning. Academic language, defined as “the specialized language, both oral and written, of academic settings that facilitates communication and thinking about disciplinary content” (Nagy & Townsend, 2012, p. 92), is targeted for two reasons. First, as Nagy and Townsend (2012) point out, its proficiency allows students to better access meaning from academic text and discussion, achieve in school, and even act like scientists and historians. Alexander (n.d.) has equated vocabulary to communicative currency. Second, from an intervention perspective, academic language is an alterable variable (Bloom, 1980) that is particularly pertinent to struggling learners, who Baker, Kame’enui, and Simonsen (2007) indicate generally know fewer words at instruction’s inception and learn fewer words over the course of instruction in comparison to regularly achieving peers.

The second research question addressed the equivalence of the probes as developed. Twenty probes were administered over a 10-day time frame in order to determine whether there were any differences in the scores of probes that were created using identical processes. The equivalence of probe scores is believed to be a critical feature of general outcome measures designated as indexes of growth (Petscher, Cummings, Biancarosa, & Fien, 2013).

Participants were fifth-graders (N = 106) in a single public K-12 school in south Louisiana. As a whole, participants were 58 percent female and 88 percent Caucasian. All participants paid full price for school lunches. No students were verified with exceptionalities. As a group, the students demonstrated success in school, with the median and most commonly reported quarter grade in the A- range. All but one of the participants (99%) scored at the basic level of proficiency on both science and social studies tests. Two measures were compared in the present study: (a) different forms of critical content monitoring for fifth-grade content; and (b) subject tests of the criterion-referenced *integrated* Louisiana Educational Assessment Program (*iLEAP*; LDE, n.d., a). Research led to draw some conclusions: A great deal more focused inquiry derived from the principles of general outcome measurement remains warranted and seems possible given the online capabilities that have been validated, to some degree, in the content area assessment literature. Online technologies will allow for the evaluation of different forms of question, for example, using stems that could target definitional or application or evaluative language. Online technologies might manipulate context-dependent versus context-independent delivery approaches. Online technologies might even investigate grade-level versus multi-grade-level content probes in an effort to make the system more efficient and less segregated. Research in this context may allow what has, to this point in time, been special education-driven inquiry, influenced by the framework of Deno and Fuchs (1987), to reach outside the general outcome measurement walls to inform and be further shaped by the larger theoretical and practical work taking place in vocabulary assessment and instruction.



DEVELOPMENT OF FUNCTIONAL MATHEMATICAL LITERACY OF PUPILS WITH MODERATE SPECIAL EDUCATIONAL NEEDS

Laima Tomėnienė

Šiauliai University, Lithuania

Abstract

The article deals with modelling of the system of functional mathematical literacy development of eighth form pupils with moderate special educational needs, learning in mainstream schools. Applying the action research method, the measurements of the participants of the (self-)educational process are analysed and, based on them, the possibilities of developing functional mathematical literacy of pupils with moderate SEN in the mainstream school, grounded on the approaches and ideas of pragmatism, social constructivism, social participation and empowerment theories, are revealed.

Key words: *action research, development of functional mathematical literacy, empowerment, moderate special educational needs.*

Problem of research

There are still numerous discussions in Lithuania as to what modern mathematical education should be like, what would be the best way to reform it and how to develop pupils' mathematical literacy in different stages of education. General Curriculum Framework for Primary and Basic Education¹ (2008) state that mathematical education at school has to be reformed in such way that pupils both acquire formal mathematical knowledge and skills and self-develop their flexible application, mathematical thinking and mathematical communication abilities. The attitude to teaching and learning is changing. There is increasingly more focus on the development of pupils' general and special competencies. General Curriculum Framework for Primary and Basic Education (2008) already orientate not that much to the importance of providing academic knowledge but to the development of pupils' general competencies and essential subject-based competencies, enhancement of individualised education and curriculum integration. Mathematical literacy is more defined by functional aspects of mathematical knowledge; i.e., individual's competencies to use mathematical knowledge practically, functionally. This is particularly relevant working with pupils who have bigger special educational needs.

The situation of self-development of skills necessary for integration of pupils with moderate SEN educated in the mainstream school during mathematics lessons could be positively changed creating empowering educational settings (systems), orientated to pupils' development of functional mathematical literacy, activating the pupil's interaction with peers and adults in various educational and life situations, encouraging the involvement of all educational participants, purposeful interaction, cooperation and experience sharing. In this process the teacher and the special educator perform several functions: the function of the mediator (the educator must help the child to concretise experience, cognise environment and structure it; he/she is creating a dialogue between the child and environment); and the function of behaviour modifier (he/she helps the pupil to change behaviour, improve the interaction

¹ *Pradinio ir pagrindinio ugdymo bendrosios programos.* (2008). Vilnius: Švietimo aprūpinimo centras

between the pupil and environment, and improve adaptation possibilities (Capul & Lemay, 1996; qtd. in Ruškus, 2002). Individual planning of education and partnership between the learner, his/her parents, teachers and other specialists are emphasised by modern conceptions of special and particularly inclusive education (Booth, Ainscow, Black-Hawkins, Shaw, & Vaughan, 2000). Researches (Gerulaitis, 2007; Geležinienė, 2009; Makauskienė, 2008; Melienė, 2009; Miltenienė, 2004; Miltenienė, Ruškus, & Ališauskas, 2003; Baranauskienė, Geležinienė, Tomėnienė, Vasiliauskienė, & Valaikiene, 2010; Baranauskienė, Tomėnienė, 2012; Jurevičienė, 2012 et al.) demonstrate that purposeful individualised education, based on pragmatic, constructivist education and empowerment approaches, orientated to the child's experience, helps to achieve better results.

The scientific literature analysis enables to state that purposeful and tantamount cooperation between all participants of special education, involvement of pupils with moderate SEN of senior forms in general class activities, and development of educational interaction and system, which empower (self-) development of functional mathematical literacy, are still missing in the practice of Lithuanian mainstream schools.

Object of the research: development of functional mathematical literacy of pupils with moderate SEN in the mainstream school.

Aim of the research: applying action research method, to analyse measurements of participants of the (self-) educational process and, based on them, to disclose possibilities of developing functional mathematical literacy of pupils with moderate SEN in the mainstream school, grounded on approaches and ideas of pragmatism, social constructivism, social participation and empowerment theories.

Methodology and methods of the research

In the process of initiating changes in (self-) education of mathematics, designing the system of functional mathematical literacy development for pupils with moderate SEN (foreseeing activities, measures, methods and measuring their effectiveness), *action research* was applied (Kemmis & McTaggart, 1988, 2005; Charles, 1999; Burns, 2000; McNiff, 2002; Baranauskienė, Ruškus, 2004; McNiff, Whithead, 2009; Reason, Bradbury, 2006; Geležinienė, 2009 et al.). Planning this research, foreseeing activities, factors discovered in previous stages of the research, related to the conception of functional mathematical literacy, manifestation of abilities and educational situation while meeting SEN in the mainstream school, were considered. Designing the model of functional mathematical literacy development of pupils with moderate SEN, the action research was organised, including group discussions, observation, document analysis and interviews with research participants. Research data were processed employing content analysis (Merkys, 1995; Burns, 2000, Белановский, 2001, Rupšienė, 2007 et al.) and statistical data analysis methods. It was sought to ensure feedback criterion by planning and discussing the research process and comparative characteristics of the written questionnaire, performed at the beginning and at the end of pupils' survey, with all research participants.

It was decided to process the data collected during test-retest employing statistical methods. Data collected during group discussions of educators and all participants were analysed and interpreted employing content analysis method.

This research differs from other scientific researches as it is attended by specialists-practitioners, who are seeking to improve their practical activities, while research results are straightaway implemented in that social setting, in which they had been obtained (Denscombe, 2003). In thesis research specialists-practitioners (mathematics teachers and special educators) pursue to improve mathematical education process of pupils with moderate SEN, enhancing it by the functionality factor.

It was sought to ensure equality among all participants of the action research process (the researcher, specialists-practitioners, pupils and their parents), their involvement in every

stage of the process (Kemmis & McTaggart, 1988); democratic relationships; and that none opinion (even the researcher's) is treated as superior.

The change of the action research under implementation is treated as an integral constituent of the action research, unifying two parts of the action research: solving of practical problems and new facts about the phenomenon of the social setting under investigation (Denscombe, 2003). Conducting the action research, certain progress and changes in the existing reality are pursued; it is expected that participating persons' professional features will also improve (Denscombe, 2003).

The action research took place periodically and encompassed the feedback loop, creating preconditions for changes of initial discoveries. Because action research is grounded on cooperation, it was important to create a general opinion about the performed activity, developing functional mathematical literacy of pupils with moderate SEN. Reflection enabled to generate ideas, share opinions, consider every participant's experience and other valuable information, which can be used for positive changes, and to form general opinion about improvement of practical activities. During every intermediary (working) meeting with educators and during the last group discussion involving all action research participants it was sought to get answers to the questions which help to perceive success/failure of (self-) education.

In order to help teachers to differentiate the educational process, increase pupils' interest in practical application possibilities of mathematics, the researcher gave her own developed examples of practical type tasks related to each mathematical chapter (word problems, project activities, practical tasks, etc.). These tasks focused on practical application of knowledge, subject integration and IT usage. SEN pupils were offered to develop their abilities through work, investigation, doing things with their hands, discussions with family members, peers and educators or engagement in certain practical activities. Such lessons make it easy for the teacher to answer the question "Why do I need it?" and to explain how performed tasks, acquired mathematical knowledge and formed skills will help in life. During every working meeting the researcher's offered tasks were reviewed and the suitability of these tasks for the development of functional mathematical literacy of pupils with moderate SEN was evaluated.

During the course of action research we maintained that pupils with moderate SEN had to be educated together with their peers, adapting the mathematics curriculum of the eighth form of the general education school, refusing some topics that are not understandable for pupils, applying active methods and focusing more on the application of practical knowledge. During the research educators were offered to follow King-Sears' (2008) statement that children with learning difficulties can learn the same as their peers but it is very important how this is being done (qtd. in Ališauskas, Ališauskienė, Gerulaitis, Kaffemanienė, Melienė, & Miltenienė, 2011).

During working meetings educators identified the situation of the development of functional mathematical literacy of pupils with moderate SEN in the mainstream school, discussed foreseen mathematical education strategies, got familiarised with the experience of meeting SEN abroad and in Lithuania, discussed interim activity achievements, observations, reflected, projected further activity landmarks (re-planning), then repeatedly acted, observed and reflected on action.

Participants of the research. The action research was attended by 3 eighth form pupils with moderate SEN, 3 parents of these pupils, 4 teachers of mathematics and 2 special educators. The main principle which was followed selecting action research participants was the principle of voluntary resolve. The age of all pupils who took part in the research (2 boys and a girl) was 14 years. All pupils with moderate SEN receive special educator's support (once per week).

Six educators (all females) agreed to take part in the educators' (mathematics teachers' and special educators') group, the mean age of which was 44 (the youngest was 35 and the oldest, 53). Action research was attended by 2 participants with 5-10 years of service, one, with 11-16, two, with 21-26, and one, with over 25 years of service. Three mothers of eighth form pupils were involved in the activities of the group, their mean age was 40 (the youngest was 38 and the oldest, 41). Two of the mothers live with a spouse and one is divorced and raises the child alone. Two mothers worked in services sector in shifts and one mother did not work anywhere, was a housewife. As to education, two mothers have secondary education and one, vocational.

Research results and their interpretation. In order to measure the effectiveness of the system of functional mathematical literacy development, constructed during the research, comparing the level of functional mathematical literacy of pupils who took part in the research at the beginning and at the end of the action research (test-retest), pupils were given the same notebook of diagnostic mathematical tasks (37 tasks), which they performed at the beginning of the research. The diagnostic test was done in parts (chapters) so that pupils do not get too tired and could reveal mathematical abilities that were self-developed in the course of research. The performed research data analysis and discussion of results took place in the last meeting of all participants.

The results of measurement of pupils' functional mathematical literacy abilities by content and activity areas and by cognitive ability groups are given in Tables 1 and 2.

Table 1. Comparative Summary of Distribution of Pupils' Mathematical Achievements by Content and Activity Areas, in Points (at the Beginning and End of the Action Research) ($N=3$)

Chapters of the diagnostic test, number of tasks and maximum number of points	Pupil J.'s results in points (collected/possible)		Pupil D.'s results in points (collected/possible)		Pupil O.'s results in points (collected/possible)	
	Before	After	Before	After	Before	After
Chapter 1. Check if you can measure (11 tasks, 19 points)	5/ 19	4/ 19	6/ 19	13,5/19	9/ 19	11/19
Change	- 1 points		+ 7,5 points		+ 2 points	
Chapter 2. Check if you know measurement units (6 tasks, 18 points)	2/18	7,5/18	3/ 18	7/ 18	8/ 18	7/ 18
Change	+ 5,5 points		+ 4 points		-1 points	
Chapter 3. Check if you can apply knowledge of geometry practically (11 tasks, 24 points)	5/ 24	10/ 24	8/ 24	13/ 24	7/ 24	11/24
Change	+ 5 points		+ 5 points		+ 4 points	
Chapter 4. Check if you can apply knowledge of mathematics in professional activities (3 tasks, 7 points)	1/ 7	1/ 7	2/ 7	1/ 7	1/ 7	3/ 7
Change	→		- 1 points		+ 2 points	
Chapter 5. Check existing economics skills (5 tasks, 20 points)	2/ 20	2/ 20	5/ 20	9/ 20	4/ 20	12/ 20
Change	→		+ 4 points		+ 8 points	
(37 tasks, 88 points)	In total	15/ 88	24,5/ 88	24/ 88	43,5/88	29/ 88
Change	+9,5 points		+ 19,5 points		+ 15 points	

Obtained research results demonstrated that systematic, purposeful functional mathematical literacy development, based on the combination of pragmatism, social constructivism, social participation, empowerment theories and the conception of mathematical literacy, resulted in considerable improvement of all three pupils' mathematical achievements, the ability to apply mathematical knowledge in practical activities (see Table 1). Final number of collected points has increased in all cases: in case of pupil J., by almost 10 points; pupil D., by almost 20 points; and pupil O., by over 15 points. Pupils much better managed to collect their thoughts, read and understand the condition of a problem, use additional aids, supporting boards and the collection of formulas. Performance of tasks in chapters "Check if you can apply knowledge of geometry practically" and "Check existing economics skills" has improved significantly. Measuring every child's performance of tasks by content and activity areas separately, we notice that there are almost no big negative changes (reduction of the number of correctly done tasks), only pupil J., doing tasks of Chapter 1 "Check if you can measure" collected one point less (drew arrows of the mechanical clock of equal lengths); pupil D., performing tasks of Chapter "Check if you can apply knowledge of mathematics in professional activities", incorrectly calculated answers in first word problems.

Comparison of the distribution of pupils' mathematic achievements by groups of cognitive abilities also enables to state that teaching mathematics in a complex and active way through practical activities, cooperation with the pupil, his/her family and other teachers throughout the academic year resulted in positive outcomes (see Table 2).

Table 2. Comparative Summary of Distribution of Pupils' Mathematical Achievements by Groups of Cognitive Abilities, in Points (in the Beginning of the Action Research) ($N=3$)

Mathematical (cognitive) abilities, number of tasks and maximum number of points	Pupil J.'s results in points (collected/ possible)		Pupil D.'s results in points (collected/ possible)		Pupil O.'s results in points (collected/ possible)	
	Before	After	Before	After	Before	After
Knowledge of mathematics and understanding (procedures) (19 tasks, 44 points)	11/ 44	18,5/ 44	15/ 44	27,5/ 44	23/ 44	25/ 44
Change	+ 7,5 points		+ 12,5 points		+ 2 points	
Application of mathematics (18 tasks, 44 points)	4/ 44	6/ 44	9/ 44	16/ 44	6/ 44	19/44
Change	+ 2 points		+ 7 points		+ 13 points	

All pupils' mathematical cognitive abilities in both areas have improved, compared with the results at the beginning of the academic year. Performance skills of pupil D., who has general learning difficulties, and of pupil J., who has mild learning difficulties, have improved in the group "Knowledge of mathematics and procedures". The most considerable progress has been achieved by pupil D. with general learning difficulties. We again notice that during the action research achievements in the group "Application of mathematics and mathematical thinking" have improved. Pupil O. did particularly well. We can assume that the measurement and comparison of mathematics achievements at the beginning and at the end of the research can be treated as one of the indicators of measuring efficiency of applied methodology. Close cooperation between educators and parents, the very child's active involvement in modelling of functional mathematical literacy development encouraged to investigate the environment more actively and apply mathematical knowledge in practical activities.

Results of group discussions of action research participants. Generalised results obtained during initial group discussions demonstrated that educators encountered least difficulties in the chosen school *perceiving their roles while developing SEN pupils' mathematical literacy and cooperation with colleagues*. Both general education educators and specialists often emphasised the importance of individualising education and support for the pupil (*of course, this individuality is badly needed; I organise practical sessions, having discussed it with the mathematics teacher; my goal is to plan the time of the lesson so that I could come up to each pupil individually at least little*), the child's empowerment (*to teach the child to use all information, tables*), promotion of his/her activeness and learning motivation (*we want to ask them too in order to arouse the wish to learn; I am doing my best to involve them in the lesson together with all pupils so that they don't "stay aside", sometimes I prepare the simplest question specially for them so that they can and are not afraid to speak in front of others, so that they can stand up, say their opinion and be heard*), and the initiative, maintaining relations with specialists/educators (*if they don't succeed I again run to look for another problem; I feel such responsibility to speak with teachers and consult whether something has to be done or not*). Specialists emphasise the importance of the creation of learners' social relationships (*to help the child to socialise in the class*). Subject teachers acknowledge that their role is important creating a favourable atmosphere for learners in the classroom (*I feel responsible for that atmosphere in the class so that they feel safe, can work, are not bullied; so that the child doesn't feel discomfort*), socialising with parents (*to be able to tell parents that the child has problems and he/she needs us all: parents', family members', teachers', special educator's support*). Sometimes educators of general education tend to focus on knowledge and curricula requirements and not on the child's practical needs, abilities (*there is a lack of time and sometimes you would like but you can't help there or give something. The closed circle, curriculum is also to be blamed, standardised tests are awaiting, points, you can't play*). Quite often both educators and specialists particularly emphasise the importance of identifying the child's problems (disorders) (*I have to notice such children who have language, writing deficiencies; my most important role is to notice the problem in time, notice all these disorders as soon as possible, what he doesn't manage to do and to ask for assistance as soon as possible; we have to see, analyse, how they are doing*), little is spoken about the pupil's abilities, strengths and there is more focus on difficulties (*he finds it difficult to learn, maybe it is a little easier for him to add and subtract ..., it is difficult to say what he is able to do... maybe it would be quicker to name what he finds it difficult to do...*). It is acknowledged that it is necessary to cooperate with parents (*this is important, if parents take care, help, then homework is done, he/she is able to do easy tasks...*); however, they do not quite imagine how they could help such pupils whose parents "rarely visit school" (*I doubt if the pupil's parents will cooperate, they always work, the pupils stays alone,... the mother said that she herself found it difficult to solve mathematical problems ...*). There is insufficient belief in pupils' ability to act as an assistant and tantamount partner, organising development of functional mathematical literacy (*well, but he speaks little, I doubt if he will be able to say anything during the meetings, .. he will be at a loss, feel not at ease, maybe we better ourselves can plan activities and involve him in the discussion of results of performed activity?... It would be good if he promised to learn more independently and responsibly but I doubt whether he himself will be able to say how and what should be taught...*).

Special educators emphasised close cooperation between educators and specialists. In educators' community, there is an abundance of informal communication with teachers (*communication takes place all the time: at lunch breaks, in the canteen, while eating; we share experiences with colleagues whether there are similar children, how they find ways out of a situation, how they act in such situation, what they can advise. This is our work either during*

breaks or during lessons or after lessons, during holidays), individual communication (we consult, discuss with assistants: special educators, the speech therapist), lectures, seminars for educators, taking place at school (certain information is given in methodical meetings, papers are read on some topic of SEN children's education; we invite from the city, specialists from the Pedagogical-Psychological Centre read papers; in our reading room we have a section on SEN children), meetings of the child welfare commission (teachers, with whom we have agreed and discussed and know why, are invited to take part in them, but sometimes teachers come themselves, having read a notice in the staff room, if they have some questions and then we discuss), an important role, initiative of the class tutor is emphasised (class tutors always know the child and his family better, communicate more; first of course the teacher addresses us), educators of general education expressed their trust in specialists working at school (our specialists are competent), an important parents' role in the child's educational process is noted (parents are important; we are pleased that the very parents come to talk or we succeed in inviting them to school), it is regretted that quite often parents leave children's education for teachers (we want to get them familiarised with adapted curriculum, common activity trends but quite often they say that they don't understand, have no time, that they "rely on teachers"). Designing the system of functional mathematical literacy development, there were questions how to better share functions: what mathematics teachers will do and what special educators will do (if the special educator, then during the lesson she should both teach what I am teaching and help him considering the difficulty; if I teach a new lesson today and during the lesson I am teaching to involute, and that little child has left and is learning, say, measurement units, what he doesn't know, then he comes to the next lesson, he further has to listen what we had been doing but he even doesn't know..., so when shall I give tasks for him? Maybe he should solve them with special educator? And maybe it is better to do it together: both in the classroom and with the special educator?). Later we arrive at the opinion how to share functions and that it is better to coordinate actions in advance and give practical type tasks for the child together (yes... we'll talk in advance, think how to relate the topic of the lesson to practice ... Several heads are better... As you have said, I'll try to involve the pupil in class activities, when we will be working on our own, I'll give tasks related to life... and I'll try to explain theoretical material to all, elaborating on examples from pupils' close setting).

One of the noticed problem areas is **difficulties organising/providing support**, related to lesson planning and organisation (*it is very difficult to help them when you are working with the whole class and this is like a problem; you'll help that child, then others won't work...; there are also gifted children among those thirty, who deserve corresponding attention, there are children who don't have special needs but they also need assistance; it is very difficult to organise group work, he is not accepted*), time management (*it is necessary to spare more time in the lesson explaining, showing, somebody doesn't need this, but they need ...; as to me, I lack time in the lesson; I need even more of that time to prepare materials*), lack of necessary competencies (*we haven't been trained ... to work with senior class pupils; we lack methods, this method is good; it is easier with mild SEN ...*), peculiarities of organising special support (*is not considered during the exams at all. We are taking care of them till the tenth form, we follow the curriculum and later, the exam; even speaking with parents ... you are explaining the system that it is necessary to help the child and here the order changes and these pupils have to write tests... so what is the benefit for the child?; in senior classes this is very difficult because they come once per week and we have to deliver what they are learning in the class because you take the child from the lesson and there is no time left for anything else*), lack of pupils' learning motivation (*you can wish to help the child as much as you want but if he doesn't want, well, how will you help him.*). Issues of educating senior class pupils are particularly topical (*the higher the form, the more problems*).

Another very relevant problem is **cooperation with parents**.

Research results demonstrated a considerable diversity of educators' opinions and intensive discussions on this topic confirmed the relevance of the problem. As it has already been mentioned, educators acknowledged parents' initiative (*sometimes parents demonstrate the initiative themselves, call and ask themselves to be accepted*), the importance of parents' involvement (*to achieve results there should be a chain connecting school and family, involving the child, the teacher, otherwise there'll be no results; but if parents help, then it is very easy to work...*), demonstrated empathy (*this unwillingness of theirs initially is very natural because every parent thinks that his/her child is good and wishes that good for him/her; well, yes, she returns already being tired, that child is also tired...*), wished parents' trust and acknowledgement of educators' competency (*they at least should perceive the child's problem and rely on specialists so that they work*), psychological support for the child at home (*so that they support morally, praise that you have done well, that you have done your best, so that they induce by something more*). Anyway quite often parents were blamed for passiveness, indifference (*another problem is to invite a parent to school, it is even difficult to contact them; if you organise the lecture, how many of them will come, those come whose children don't have problems, and where problems exist, it is impossible to invite those parents*), blamed for children's problems (*often they themselves have special needs or have had them. They find it difficult to evaluate and tell because they don't quite understand themselves ...; rarely any of them understands that he has problems himself, how he will understand that the child has problems...; genes, here genes...*), parents' unwillingness to take a part of responsibility for the child's education is emphasised (*also those come who pay little attention, I know that there is a problem, your problem, if it is difficult to work with a child, I let the child go to school and you have to work with him, they also have most of claims and appear most rarely*). Quite often educators resent parents' negative reactions. These include accusations for educators, non-acknowledgement of the child's problem (*the biggest pretensions from parents' side, did not see, did not look, that my child is OK, the teacher romances, is biased*), unrealistic expectations (*do not measure their children and then want what is unreal...*). Educators noticed parents' fears regarding the child's exclusion, which can appear when special educational support provision is initiated (*they are very much afraid of being included into the curricula... because anyway they are easier... know that anyway the child is excluded in some way; more than once I heard what relatives, neighbours will say, what a shame*).

Relevant issues of **attitude to the SEN child** and his/her participation in problem solving. Research participants spoke about the lack of purposefulness of SEN pupils' social-teaching activity (*are engaged in their own matters, do what they want*), bad physical-emotional self-feeling (*can work for 10-15 minutes, in the fifth form he used to do his best but often did not succeed and that is why became so reserved*), often underlined their problems and disorders (*can't listen, tell, can't distinguish the most important points, ...*), expressed disbelief in the child's abilities (*there are cases when he raises his little hand, you already know that he will not answer, but I know very well, you know, that's why you don't ask because that child will say a nonsense*). Educators notice peers' negative attitudes and alienation (*if he answers incorrectly, he is laughed at...*); *everyone wants to use another pupil's results and they are often alienated, if you try to give another type of work, even when they are senior, they don't want ...better choose not to do anything ...*), acknowledge lack of educators' attention (*they lack communication ... really in the class very little time is left for them, most often you are happy if you come up to them 2-3 times during the lesson, and he needs that ...is often diffident...*).

Speaking about children's possibilities to take active part in solving functional mathematical literacy development problems, educators acknowledged certain senior class

pupils' powers to get involved and actively participate in a team (*because these are senior class pupils, parents consider their opinion and we consider; I think why they couldn't ...we don't say anything bad...*), stated that they even had such experience (*with senior pupils we speak who thinks what both individually and together, even parents and we, the pupil; we only don't invite officially*) but these were more spontaneous, episodic and unplanned meetings (*there is no such kind of tradition*). **Educators' negative emotions and bad self-feeling were identified** educating pupils with SEN: dissatisfaction with oneself or one's work results (*when you work with SEN pupils, you always feel that you haven't given something; I feel I haven't given something to the child throughout all lesson...*), helplessness (*you don't give not because you don't want but because this is not possible*).

Teachers approved of the necessity to model the system of functional mathematical literacy development: *it's a good thing, functionality must be developed, these pupils particularly need*; all participants agreed that it was necessary to actively teach pupils (*yes, active methods can help to develop literacy; it is more interesting for pupils this way; it is good that there will be tasks for project activities; I like to give tasks for work in pairs, then they can teach each other, group work is interesting, we often go to the park, museum to do some small project work, children enjoy it*). However, three educators imparted worry about frequent organisation of group work in mathematics lessons (*the SEN child is often an observer in the group; not all topics suit for this, much noise, this turns only into something like a game...*). Educators approve the usefulness of the application of teaching strategies, organising functional mathematical literacy development in the mainstream school (*yes, all strategies mentioned by the author are necessary because here learning and educational factors are also mentioned, very needful methodical aids*). A share of educators distinguished weaknesses of organisation of the educational process (*there is a lack of teaching aids, methods for teaching senior class pupils; it is not always possible to apply peers' assistance, if the atmosphere in the class is insufficiently good, the child doesn't have friends; we are trying to help but we don't always succeed; this depends on the class. I find it difficult to teach SEN children, relate knowledge of certain topics to practice; maybe it is necessary to refuse them? But if these are included in the tests? We lack computers in the classroom to give tasks for work with the computer for the SEN pupil...*)

Analysing the data obtained during teachers' working meetings, it was noticed that after the meetings educators were more positive about the involvement of pupils with moderate SEN and their parents in the educational process, possibilities of developing mathematical abilities. Educators acknowledged the importance of the pupil's participation in the discussion of his/her (self-)educational achievements and of his/her ability to discuss it, get involved in common class activities, applying suitable (self-)educational strategies focused on active knowledge and skill application and on relation with life experience. There were also discussions about application of teaching/learning methods in mathematics lessons, developing functional mathematical literacy of pupils with moderate SEN. It was underlined that it was really beneficial to include practical work when the very pupils could formulate the rule and understand main mathematical truths, which often have to be used in life (*it was fun for them to try out, formulate a conclusion, observe ... they did a lot of project work ... homework*), it was only regretted that *such activities could not take place every day*. During the last discussion educators and pupils indicated that active teaching/learning methods were most efficient. These included the method of cooperation (*work in pairs really suited me but it was more difficult to organise group work*), project activity (particularly for pupils: *they enjoyed it immensely, I didn't think it would be such fun ... great, I did a lot of tasks, investigations ...during project work I made friends not only with my classmate but also with family members; with mother like friends ... and I am not afraid to say that something failed ...I couldn't imagine that there was so much*

mathematics in life: projects demonstrated this...). Everybody noted the importance of such learning strategies as peer support (teachers: *they started keeping company after the lessons, even no need to say, helps him himself, if O. doesn't understand...; both come to consultations, which was not the case earlier*), (pupils: *I found a friend..., I started to understand better... and if I don't know something, J. helps; it is quite fun to go to consultations, when your friend is going next to you, who will explain ..., the teacher explains well but the friend somehow more clearly explains and I understand*).

During the last discussion we asked pupils' mothers whether it was useful to organise functional mathematical literacy development, involving not only educators but also parents and pupils into its planning. The mother were pleased that *[I saw the school in different eyes, I found out more about my child, I found it quite interesting], [in the beginning I felt quite timid, I thought that I wouldn't be able to help the child in any way but I succeeded ...], [Now I go to school looking at it very differently, I willingly communicate with teachers, I try to listen carefully to pieces of advice and advise myself...]*.

Together with all members of group discussion we discussed the system of functional mathematical literacy development of pupils with moderate SEN. All participants noted that this was a very changeable interactive process, which has to reflect both the very **didactic mathematical process** and **tantamount cooperation** among all participants of the educational process *[this way we enable both pupils to participate in planning and organisation of their learning and parents and us, teachers]*, both **the link between theoretical knowledge and practice** and appropriate **application/individualisation of mathematics curricula**, focusing on the necessity of topics for the development of general abilities, also considering that **the pupil has to take part in the lesson together with all class pupils** *[contextuality is very important, ... not all mathematical topics suit, you have to select ..., it was interesting to select together with teachers and the mother, what will I need, where I will be able to apply mathematical knowledge in life]*. According to educators, philosophical grounding of education is very important *[during action research I understood how important it was to perceive the essence of pragmatism, social constructivism theories, social participation and particularly empowerment ... It is of utmost importance to be able to select your own activity, organise the educational process in the right direction... this was what gave good results... It is fun to see that pupils are also happy...]*.

Conclusions

1. Action research enabled educators to consider and regroup priorities of methods, activities of mathematical education, developing functional mathematical literacy of 8 form pupils with moderate special educational needs: focus on knowledge and outcome, emphasis on the disorder were replaced and supplemented with the pursuit of acknowledging the child's individuality, the learner's cognition, focus on support, considering the pupil's strengths and purposeful usage of teaching/learning strategies, orientated to practical application of mathematical knowledge in the educational process and life.
2. Teaching methods, aids, ways of work, which were chosen considering special educational needs, determined pupils' active and independent participation in the lessons. This affected the achievements of pupils with special educational needs. Therefore, it is important to consider this criterion choosing teaching methods.
3. Referring to pragmatism, social constructivism, social participation and empowerment theories, we achieved that all participants of the educational process (the pupil, parents, educators and specialists) cooperated as tantamount partners, seeking common goals.

4. Seeking empowerment of children's parents and more effective support to the very child, it was efficient to draw up individual support and individual education plans for pupils, involving both the child, his/her parents and all family members in this process.
5. It was noticed that the participation in the research affected educators' and parents' general competencies related to personal growth and the person's general abilities as well as subject-based abilities in the area of special education. Changes in value approaches towards the pupil with moderate special educational needs are observed (acknowledgement of SEN child's individuality, the pupil's cognition, positiveness, etc.).

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RESULTS OF ACTION RESEARCH FOCUSED ON DEVELOPMENT OF FUNCTIONAL MATHEMATICAL LITERACY OF PUPILS WITH MODERATE SPECIAL EDUCATIONAL NEEDS

Summary

Laima Tomėnienė
Šiauliai University, Lithuania

There are still numerous discussions in Lithuania as to what modern mathematical education should be like, what would be the best way to reform it and how to develop pupils' mathematical literacy in different stages of education. The scientific literature analysis enables to state that purposeful and tantamount cooperation between all participants of special education, involvement of pupils with moderate SEN of senior forms in general class activities, and development of educational interaction and system, which empower (self-)development of functional mathematical literacy, are still missing in the practice of Lithuanian mainstream schools.

Aim of the research: applying action research method, to analyse the measurements of participants of the (self-)educational process and, based on them, to disclose possibilities of developing functional mathematical literacy of pupils with moderate SEN in the mainstream school, grounded on the approaches and ideas of pragmatism, social constructivism, social participation and empowerment theories. Object of the research: development of functional mathematical literacy of pupils with moderate SEN in the mainstream school. The action research was attended by 3 eighth form pupils with moderate SEN, 3 parents of these pupils, 4 teachers of mathematics and 2 special educators.

In the process of initiating changes in (self-)education of mathematics, designing the system of functional mathematical literacy development for pupils with moderate SEN (foreseeing activities, measures, methods and measuring their effectiveness), **action research** was applied. Planning this research, foreseeing activities, factors discovered in previous stages of the research, related to the conception of functional mathematical literacy, manifestation of abilities and educational situation while meeting SEN in the mainstream school, were considered. Designing the model of functional mathematical literacy development of pupils with moderate SEN, action research was organised, including group discussions, observation, document analysis and interviews with research participants. Research data were processed employing content analysis and statistical data analysis methods. It was sought to ensure feedback criterion by planning and discussing the research process and comparative characteristics of the written questionnaire, performed at the beginning and at the end of pupils' survey, with all research participants. During working meetings educators identified the situation of the development of functional mathematical literacy of pupils with moderate SEN in the mainstream school, discussed foreseen mathematical education strategies, got familiarised with the experience of meeting SEN abroad and in Lithuania, discussed interim activity achievements, observations, reflected, projected further activity landmarks (re-planning), then repeatedly acted, observed and reflected on action.

Obtained research results demonstrated that systematic, purposeful functional mathematical

literacy development, based on the combination of pragmatism, social constructivism, social participation, empowerment theories and the conception of mathematical literacy, resulted in considerable improvement of all three pupils' mathematical achievements, the ability to apply mathematical knowledge in practical activities. All pupils' mathematical cognitive abilities in both areas have improved, compared with the results in the beginning of the academic year.

Action research enabled educators to consider and regroup the priorities of methods, activities of mathematical education, developing functional mathematical literacy of 8 form pupils with moderate special educational needs: focus on knowledge and outcome, emphasis on the disorder were replaced and supplemented with the pursuit of acknowledging the child's individuality, the learner's cognition, focus on support, considering the pupil's strengths and purposeful usage of teaching/learning strategies, orientated to practical application of mathematical knowledge in the educational process and life.

Teaching methods, aids, ways of work, which were chosen considering special educational needs, determined pupils' active and independent participation in the lessons. This affected achievements of pupils with special educational needs. Therefore, it is important to consider this criterion choosing teaching methods. Referring to pragmatism, social constructivism, social participation and empowerment theories, we achieved that all participants of the educational process (the pupil, parents, educators and specialists) cooperated as tantamount partners, seeking common goals. Seeking the empowerment of children's parents and more effective support to the very child, it was efficient to draw up individual support and individual education plans for pupils, involving both the child, his/her parents and all family members in this process. It was noticed that participation in the research affected educators' and parents' general competencies related to personal growth and the person's general abilities as well as subject-based abilities in the area of special education. Changes in value approaches towards the pupil with moderate special educational needs are observed (acknowledgement of SEN child's individuality, the pupil's cognition, positiveness, etc.).

THE HEALTH LITERACY STATUS OF YOUTH WITH DISABILITIES IN A RESIDENTIAL TREATMENT SETTING

Jacqueline N. Huscroft-D'Angelo

Texas Christian University

Alexandra L. Trout, Michael H. Epstein

University of Nebraska-Lincoln

Ronald W. Thompson

Boys Town National Research Institute

Abstract

Research³ has indicated that youth eligible for special education services in residential centers are at an increased risk across many areas including overall health, medication use, academic, behavioral, and familial functioning. Yet it remains unknown how well they are able to read, understand, and use health-related information. The purpose of this study was to investigate the health literacy status of youth receiving special education ($N=61$) services at a large residential care facility in the Midwest. Results indicate youth with disabilities are at increased risk of low health literacy in areas of reading recognition and comprehension. Specifically, well over 50% of the sample scored in the possible to likely limited health literacy level. Study limitations, future research, and implications are provided.

Keywords: health literacy, special education, residential care, youth

Introduction. The Health Literacy Status of Youth with Disabilities in a Residential Setting

In recent years, health literacy has become an international public health issue as individuals are being asked to play a greater role in managing their physical health (Manganello, 2008; Sorensen & Brand, 2011). Along these lines, establishing a healthy population and workforce is part of success for the Europe 2020 strategy (European Commission, 2010; Sorensen & Brand, 2011). Health literacy, defined as the ability to obtain, process, and understand basic health information and services needed to make sound decisions regarding health (US Department of Health and Human Services [US DHHS], 2000) has been studied extensively with adults (US DHHS Office of Disease Prevention and Health Promotion [US DHHS ODPHP], 2000). However, similar efforts are lacking for youth (Chisolm & Buchanan, 2007; Davis, Wolf, Arnold, Byrd, Long, Springer, & Bocchini, 2006). While limited, initial research efforts have included the development of health literacy measures for adolescents, the validation of measures among different populations, and preliminary studies of health related knowledge (Brown, Teufel, & Birch, 2007; Chisolm & Buchanan, 2007; Davis et al., 2006; Diamond, Saintonge, August & Azrack, 2011; Fortenberry, McFarlane, Hennessy, Bull, Gimley, St Lawrence, & Van Devanter, 2001; Hoffman, Trout, Nelson, Huscroft-D'Angelo, Sullivan, 2011). The research reported here was supported by the U.S. Department of Education, through Grants R324B110001 and H325D040020 to the University of Nebraska-Lincoln. The opinions expressed are those of the authors and do not represent views of the Institute of Education Sciences or the U.S. Department of Education

Epstein, & Gibbons, 2013; Manganello, 2008; Trout, Hoffman, Epstein, Nelson, & Thompson, 2014; US DHHS, 2000; US DHHS ODPHP, 2000). While these efforts are encouraging, this topic remains a significant concern given that serious health related problems (e.g., diabetes, obesity, asthma) continue to be on the rise for youth in general (Van Cleave, Gortmaker, & Perrin, 2010). These problems are of additional concern for high-risk youth, such as those in residential care, as research suggests a link exists between individuals that demonstrate mental health challenges and risk of physical health problems. For example, it is recognized there is a relationship between stress and weaker immune functioning as well as an association between asthma and emotion, stress, or other psychological factors (Connor, Doerfler, Toscano, Volungis, & Steingard, 2004; Herbert & Cohen, 1993; Nelson, Smith, Thompson, Epstein, Griffith, Duppong-Hurley, & Tonniges 2011; Segerstrom & Miller, 2004).

Annually, approximately 200,000 youth receive behavioral and mental health services in residential centers (Child Welfare League of America [CWLA], 2007). According to Kott (2010), "...Residential treatment is a system of care or services provided outside of the home, within the child welfare system" (p. 15) and includes programs such as substance abuse centers, family-style residential group homes, residential schools, or therapeutic boarding schools. These programs may differ depending on the target population, length of stay, or level of restrictiveness and are often considered to be one of the most restrictive settings (Lee, 2008). Youth typically enter with elevated risks across many areas including academics, behavior, family, physical, and mental health (Breland-Noble, Elbogen, Farmer, Dubs, Wagner, & Burns 2004; CWLA, 2007; Connor et al., 2004; Drais-Parrillo, Baker, Fojas, Gunn, Kurland, & Schnur 2004; Griffith, Ingram, Barth, Trout, Hurley, Thompson, & Epstein, 2009; Pottick, Warner, & Yoder, 2005).

Studies reveal that as many as 33% to 40% of youth in care are diagnosed with at least one medical condition, including elevated risk for asthma, neurological conditions, and obesity and these have also been linked to poor mental health functioning (Connor et al., 2004; Nelson et al., 2011). In a separate study, Nelson et al. (2012) examined the association between psychopathology and physical health and reported high levels of youth psychopathology to be associated with elevated risk for comorbid medical problems. More specifically, internalizing problems such as anxiety were closely associated to medical status and youth with mental health comorbidity were found to have heightened medical risk (Nelson et al., 2012). Therefore, the importance of understanding personal health needs and related information is critical for youth in care.

Although the general population of youth in residential care tends to demonstrate broad risks, youth with disabilities may be at increased risk for poor health literacy due to elevated risk in areas such as academics, behavior, family stability, and co-occurring physical health challenges. For example, in a study of youth served in a residential setting, Trout et al (2009) found that youth with disabilities are at elevated risk in several academic areas including reading fluency, spelling, and reading comprehension—all essential components of health literacy. In the same study, youth with disabilities were also significantly more likely to have substance abuse, social problems, and externalizing behaviors than their peers in care without disabilities. Similar results were found by Chmelka, Trout, Mason, & Wright (2011) who noted that those receiving special education services had significantly lower IQs, were on more psychotropic medications, had more formal placements and transitions, and reported elevated social problems at entry to care. When examining differences at departure, youth with disabilities were more likely to leave care using more psychotropic medications, were more likely to have transitioned to a more restrictive level of care, and were less likely to reintegrate into a home setting or to independent living (Chmelka et al., 2011). These risks present significant continuing challenges to youth across broad areas of functioning, and likely also

reveal a negative impact on their ability to make informed health decisions, access appropriate health services and supports, and follow medical instructions.

The physical health and medical conditions of students with school-identified disabilities both in and out of residential care has become a focus for researchers in the past few years. Specifically, in two large longitudinal studies (i.e., National Longitudinal Transition Study-2[NLTS-2]; Wagner, Marder, Levine, Cameto, Cadwallader, & Blackorby, 2003; Special Education Elementary Longitudinal Study [SEELS]; Blackorby, Wagner, Cadwallader, Cameto, Levine, Marder, & Giacalone, 2002) parents of elementary school (N=12,785) and secondary school (N=11,280) students receiving special education services were surveyed on the physical health status of their children. Almost 30% of these students with disabilities were in poor or fair health, which was significantly greater than students without disabilities. Also, almost 25% of these students with disabilities were taking prescription medications related to their medical conditions with the most use reported for students with reported fair or poor health status. Trout and colleagues (submitted) followed up this line of inquiry with 346 youth with disabilities in residential care. This research found that over one-third (34%) of these youth enter residential care with a diagnosable medical condition, which is almost five times greater than found in youth in the United States (e.g., Van Cleave, Gortmaker, & Perrin, 2010). Also, they found that the most prevalent medical problem was asthma with 15.6% of youth presenting with this condition, which is twice the national rate (Adam, Hendershot, & Marano, 1999).

While youth with disabilities in residential care are likely at increased risk for low health literacy due to co-occurring behavioral, academic, family, and physical health challenges, they also have a documented high prevalence of medical conditions, continued need for medication management and health care support following departure from care, making health literacy of particular importance. Yet, research has not evaluated the health literacy of this high-risk population.

Object of the research – the health literacy status of youth with disabilities in a residential treatment setting.

The purpose of this study was to examine the health literacy status of youth with disabilities in a residential setting. Health literacy status along with the relationship between health literacy and key youth demographic characteristics such as gender, race/ethnicity, and disability category were examined.

Methods of the research

Participants

All procedures were approved by the Institutional Review Boards at the authors' university institution and the participating residential program. The residential program is comprised of 61 community-based family style homes (Family Home Program) in which 6 to 8 youth, 12 to 18 years of age live with a married couple (Family Teachers) and one assistant (Assistant Family Teacher). Youth come from a variety of religious, socioeconomic, as well as cultural backgrounds and are referred most often through social service agencies, juvenile courts, or human service professionals. The program aims to work with schools, families, and community organizations to teach youth the necessary skills to help them achieve success in school, work, and with their families. Youth (ages 14-19) were recruited from the residential high school for a brief in-person interview. Youth that expressed interest signed a flyer giving the research team permission to seek consent from their Family Teacher. Family Teachers were then contacted by staff members of the residential program, and permission was granted by 100% of those contacted.

Participants included 61 assenting youth in grades 9-12 who were receiving special education services. Youth were predominantly male (72.1%) with a mean age of 16.89 years

($SD = 1.21$; range = 14 to 19 years). Slightly over forty-percent (40.9%) were Caucasian, 27.8% were African-American, 13.1% were Hispanic, 8.2% were American Indian or Alaska Native, and 9.8% identified two or more ethnicities. Overall, the highest percentage of participants were in the 12th grade (36.1%), followed by sophomores (24.6%), juniors (21.3%) and freshman (18.0%). Slightly over one-third (37.7%) were state wards and had an average of 2.44($SD = 1.16$) psychiatric diagnoses. An overwhelming majority (84.5%) was diagnosed in one special education disability category, 13.8% in two disability categories, and 1.7% in three disability categories. The highest percentage of primary disability category was identified under the category Learning Disability (LD; 34.5%), 29.3% Other Health Impairment (OHI), 19.0% Emotional/Behavior Disorder (EBD), 8.6% Eligible Individual (EI), 3.4% Speech Language Impairment, 3.4% Mild Mental Handicap (MMH), and 1.7% Autism. The group had a mean Full Scale IQ of 88.45($SD = 13.02$).

Measures

Two health literacy measures were used to assess the health literacy status of youth with disabilities. The measures were selected because they were psychometrically sound, had been used in several studies of youth health literacy and fit within the typical assessment context of schools. Youth were given an envelope with these measures enclosed.

The Newest Vital Sign (Weiss, Mays, Martz, Castro, DeWalt, Pignone, & Hale, 2005) assesses reading comprehension and numeracy by asking individuals questions about a specially designed ice cream nutrition label (e.g., If you eat the entire container, how many calories will you eat?). The NVS is scored by adding up the total number of correct answers. Scores range from 0-6, with each question being worth 1 point. Scores of 0-1 suggest high likelihood of limited literacy; 2-3 indicate the possibility of limited literacy, and 4-6 indicate adequate literacy (Weiss et al., 2005).

The psychometric status of the NVS has been determined to be acceptable with both typical (Warsh et al., 2011) and residential (Hoffman et al, in press) samples of adolescents.

The Rapid Estimate of Adult Literacy-Teen (REALM-Teen; Davis et al., 1993) is a 66-item word recognition test that assesses the ability of an individual to pronounce 66 health-related words (e.g., weight, prescription, tetanus). The REALM-Teen is scored by adding up the total number of words pronounced correctly. Scores range from 0-66, and are expressed as grade-level reading estimates (<37words correct=3rd grade and below; 38-44=4th-5th grade; 45-58=6th-7th grade; 59-62=8th-9th grade; 63-66=10th grade and above; Davis et al., 2006). The psychometric status of the REALM-Teen was determined in a study of youth ($N=1,533$) attending public schools in Louisiana and North Carolina (Davis et al., 2006), and has been used in establishing the validity of other health literacy measures (Chisolm & Buchanan, 2007).

Procedures

Three data collectors were trained by the principal investigators (PIs). A structured training session was conducted and included an overview of the study's purpose, an introduction to the measures, detailed instructions on working with participants, and an opportunity to role play. Following training, data collectors were tested by the PIs on key data collection protocol and were required to pass the test with a score of 95% or higher. During implementation of the assessments, youth were individually removed from class, read an assent form, and given an opportunity to ask questions. Assenting youth then completed one of three assessment packets which were identical, however the assessments were randomized to counterbalance any order testing effects. Assessment packets included an opening script read aloud by researchers and specific directions for administering each measure. It took participants an average of 21 minutes to complete their packet.

Methods of Research Data Analysis

First, descriptive statistics were generated to provide an overview of the sample on demographic, academic, behavior, and family variables. Second, means and standard deviations were calculated for each of the continuous variables assessed. Frequencies were calculated for each of the discrete variables assessed. Third, an independent sample t-test and ANOVA tests were conducted to identify differences between gender, ethnicity, and primary special education eligibility category among youth with disabilities. A Bonferonni post-hoc test was also used to identify specific differences between groups.

Research Results

The NVS includes items which assess both the reading comprehension and numeracy aspects of health literacy. The overall mean score for this sample was 2.41 ($SD = 1.66$). Almost half (45.9%) of the youth scored in the *possibility of limited literacy* category, over one quarter (26.2%) in the *likelihood of limited literacy* category, and slightly over a quarter (27.8%) in the *adequate literacy* category.

The REALM-Teen assesses health literacy as individuals are asked to read and pronounce health-related words. Over half of the sample (59%) was reading at least two grade levels below their current grade level, 36% indicated reading one grade level below their current grade, and 5% were reading at or above grade level.

Gender, ethnicity, and primary eligibility category differences were examined. There were no significant special education disability category or gender differences found on either measure. For analysis purposes, a total of four disability categories (i.e., Other Health Impaired, Learning Disabilities, Emotional/Behavioral Disorders, and Other) were used to examine differences between primary eligibility categories. Given the low frequency youth with Autism, Speech Language Impairment, Mild Mental Handicap, or Eligible Individual, an “other” category was created. Scores on the REALM-Teen ($f = 4.406, p < .001, ES = .49$) were significantly different with respect to ethnicity. Specifically, post-hoc tests revealed significant differences between African-American and multiracial youth ($f = 3.382, p < .05$) as well as African-American and Caucasian participants ($f = 2.239, p < .01$). Overall, African-American youth scored the lowest on the REALM-Teen followed by Hispanic/Latino participants. Multiracial youth scored the highest on both assessments.

Discussion

Youth in care facilities are faced with challenges that may potentially impact their ability to independently monitor and evaluate their own health care. Research has demonstrated that youth with disabilities present additional risks particularly in areas of academics, behavior, and mental health (Chmelka et al., 2011; Trout et al., 2009) which relate directly to aspects of adequate health literacy. More importantly, youth with disabilities in residential care have been found to have significantly more medical conditions including asthma and problems of the digestive system as well as high medical utilization than youth not in residential care. Functional levels of youth health literacy are important for several reasons including knowing how various health needs relate to one another, accessing support while in and out of care, and during the transition to adulthood where healthcare management is critical for positive long term health outcomes. Therefore, the objectives of this study were to better understand the health literacy status of youth with disabilities among a sample of residential youth.

Results indicate that the majority of youth scored in the “possibility” and “likelihood” range of limited literacy on the NVS and over half of the participants scored at least two grade levels below on the REALM-Teen. Given that most health-care materials are written at a 10th grade-level or higher (Davis et al., 1993; Sheridan, Harris, & Wolf, 2003; Wallace, 2006), this finding brings to light the concern of the ability of youth with disabilities to obtain, process, and understand basic health care information as nearly three-fourths of the participants were

reading well below this reading level. Furthermore, previous research has identified that below grade reading level has an impact on adolescent risk behavior and health care (Davis et al., 2006), which presents an additional challenge for this subgroup of youth in care. Provided that youth with disabilities already demonstrate increased risk in areas of academics, behavior, mental health, physical health, and medication needs, the need for adequate and continuous health care will likely be an ongoing challenge for this population. These findings suggest that when faced with health related tasks and decisions, youth with disabilities are very likely to struggle with reading and comprehending health-related materials including instructions, prescriptions, and information.

Similar to results found in prior studies (Davis et al., 2006) significant differences were found between youth of different ethnic backgrounds. Specifically, African-American and Hispanic/Latino youth tended to report the lowest rates of health literacy on both measures, but statistically significant differences with medium effects were found only on the REALM-Teen. This suggests additional efforts should be made to ensure that these youth leave care well prepared to navigate the health system and access supports.

Implications

Results reveal that youth with disabilities are at elevated risk for low health literacy. Although additional research is needed, these findings suggest important implications for practitioners and researchers working to improve outcomes of youth with disabilities in residential care. First, treatment providers should consider incorporating health literacy measures that can be used to gather a comprehensive picture of the youth's health knowledge, management, and functioning at entry to care. These results can be used to develop specific goals that could be written into the youth's treatment plan and transition portion of the youth's Individualized Education Plan (IEP) in order to increase health literacy, in the short-term, and to help youth understand the importance of managing their own health care, in the long-term. Third, prior to departure, service providers should work to inform youth and families of health-related resources in the community and connect them with necessary health-care providers such as physicians, psychiatrists, and psychologists as a proactive step towards establishing independence in health care monitoring. Finally, as future steps are taken to develop curricula and interventions designed to improve health literacy, it is imperative that treatment providers acknowledge differences in how youth with disabilities interpret, process, and comprehend health related information. Interventions and programs seeking to promote health literacy among youth with disabilities may need additional consideration such as differentiating the curriculum and readability levels, offering small group instruction, shortened lessons, or scaffolding, as these strategies are effective academic supports for students with disabilities (Friend & Bursuck, 2009).

Limitations and Future Research

Limitations of this study should be acknowledged and addressed in future research. First, the sample was from one residential setting. Because residential programs offer various approaches to treatment and education, the results and generalizability from this study may not be representative of youth in other residential settings. Replication of this study in other settings is needed to determine if the health literacy status is similar across agencies. Second, although the NVS and REALM-Teen are widely used measures (Nielsen-Bohlman, Panzer, & Kindig, 2004) and have demonstrated psychometric adequacy for use with youth in residential settings (Hoffman et al., in press), they do not provide a comprehensive overview of youth health literacy. Specifically, these scales primarily measure health literacy by assessing fluency, comprehension, and numeracy, but do not provide information on a youth's ability to navigate the health care system including health knowledge related to prevention and treatment. Therefore, future studies assessing these additional domains would provide a more comprehensive understanding of health literacy among youth with disabilities. A

fourth limitation was not including a standardized measure of reading literacy to serve as a measure of convergent validity for this population of youth and more importantly to assess how related reading literacy and health literacy is in this group of youth. Finally, this study was limited to youth with specific primary eligibility categories (e.g., LD, BD, OHI) and had a very limited number of participants in some of the eligibility categories. Therefore, future researchers should look at including a more diverse and larger sample of youth receiving special education services to explore if there are additional differences which may exist among specific categories of youth with disabilities in order to better understand how to best prepare this population to manage their health care needs.

Conclusion

The importance of understanding the health literacy of different populations is increasing as health care reform continues to be a primary topic of debate in many countries. Although European societies are among some of the most educated and healthiest in the world (Albert & Davia, 2010), establishing a population that has proficient health literacy continues to be a priority (European Commission, 2010). Certain characteristics have been identified as indicators of low health literacy, and youth in residential care are one group that poses a greater risk for low health literacy based on their identified challenges (i.e., increased mental health, elevated family problems, poorer physical health, low academic achievement). Furthermore, additional risks are present for youth with disabilities in residential care. Compared to the general population of youth in care, youth with disabilities scored poorly in health literacy recognition and comprehension and demonstrated an overall risk for low health literacy. These results suggest that additional research and supports in health literacy are needed to ensure youth are able to access health-related information and make informed decisions regarding their own health care. Finally, as future steps are taken to design intervention targeted at improving health literacy, it is imperative that researchers and practitioners acknowledge and take into consideration how youth with disabilities interpret, process, and comprehend health information.

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THE HEALTH LITERACY STATUS OF YOUTH WITH DISABILITIES IN A RESIDENTIAL TREATMENT SETTING

Summary

Jacqueline N. Huscroft-D'Angelo, Texas Christian University

Alexandra L. Trout, Michael H. Epstein, University of Nebraska-Lincoln

Ronald W. Thompson, Boys Town National Research Institute

In recent years, health literacy has become an international public health issue as individuals are being asked to play a greater role in managing their physical health (Manganello, 2008; Sorensen & Brand, 2011). Along these lines, establishing a healthy population and workforce is part of success for the Europe 2020 strategy (European Commission, 2010; Sorensen & Brand, 2011). Annually, approximately 200,000 youth receive behavioral and mental health services in residential centers (Child Welfare League of America [CWLA], 2007). According to Kott (2010), "...Residential treatment is a system of care or services provided outside of the home, within the child welfare system" (p. 15) and includes programs such as substance abuse centers, family-style residential group homes, residential schools, or therapeutic boarding schools.

Although the general population of youth in residential care tends to demonstrate broad risks, youth with disabilities may be at increased risk for poor health literacy due to elevated risk in areas such as academics, behavior, family stability, and co-occurring physical health challenges. For example, in a study of youth served in a residential setting, Trout et al. (2009) found that youth with disabilities are at elevated risk in several academic areas including reading fluency, spelling, and reading comprehension—all essential components of health literacy. In the same study, youth with disabilities were also significantly more likely to have substance abuse, social problems, and externalizing behaviors than their peers in care without disabilities. The physical health and medical conditions of students with

school-identified disabilities both in and out of residential care has become a focus for researchers in the past few years.

While youth with disabilities in residential care are likely at increased risk for low health literacy due to co-occurring behavioral, academic, family, and physical health challenges, they also have a documented high prevalence of medical conditions, continued need for medication management and health care support following departure from care, making health literacy of particular importance. Yet, research has not evaluated the health literacy of this high-risk population.

Object of the research – the health literacy status of youth with disabilities in a residential treatment setting.

The purpose of this study was to examine the health literacy status of youth with disabilities in a residential setting. Health literacy status along with the relationship between health literacy and key youth demographic characteristics such as gender, race/ethnicity, and disability category were examined.

All procedures were approved by the Institutional Review Boards at the authors' university institution and the participating residential program. The residential program is comprised of 61 community-based family style homes (Family Home Program) in which 6 to 8 youth, 12 to 18 years of age live with a married couple (Family Teachers) and one assistant (Assistant Family Teacher). Participants included 61 assenting youth in grades 9-12 who were receiving special education services. Youth were predominantly male (72.1%) with a mean age of 16.89 years ($SD = 1.21$; range = 14 to 19 years). Slightly over one-third (37.7%) were state wards and had an average of 2.44 ($SD = 1.16$) psychiatric diagnoses. An overwhelming majority (84.5%) was diagnosed in one special education disability category, 13.8% in two disability categories, and 1.7% in three disability categories.

There were used The Newest Vital Sign (Weiss et al., 2005) assesses reading comprehension and numeracy instrument and The Rapid Estimate of Adult Literacy-Teen (REALM-Teen; Davis et al., 1993) test as well.

Descriptive statistics were generated to provide an overview of the sample on demographic variables; means and standard deviations and frequencies were calculated for each of the continuous variables assessed; an independent sample t-test and ANOVA tests were conducted to identify differences between gender, ethnicity, and primary special education eligibility category among youth with disabilities. A Bonferonni post-hoc test was also used to identify specific differences between groups.

Results of the study let us to draw conclusions:

The importance of understanding the health literacy of different populations is increasing as health care reform continues to be a primary topic of debate in many countries. Although European societies are among some of the most educated and healthiest in the world (Albert & Davia, 2010), establishing a population that has proficient health literacy continues to be a priority (European Commission, 2010). Certain characteristics have been identified as indicators of low health literacy, and youth in residential care are one group that poses a greater risk for low health literacy based on their identified challenges (i.e., increased mental health, elevated family problems, poorer physical health, low academic achievement). Furthermore, additional risks are present for youth with disabilities in residential care. Compared to the general population of youth in care, youth with disabilities scored poorly in health literacy recognition and comprehension and demonstrated an overall risk for low health literacy. These results suggest that additional research and supports in health literacy are needed to ensure youth are able to access health-related information and make informed decisions regarding their own health care. Finally, as future steps are taken to design interventions targeted at improving health literacy, it is imperative that researchers and practitioners acknowledge and take into consideration how youth with disabilities interpret, process, and comprehend health information.



IV. PSYCHOSOCIAL REHABILITATION

LINKS BETWEEN ADOLESCENTS' SUBJECTIVE HEALTH ASSESSMENT, TYPE OF PHYSICAL ACTIVITY AND POSTURE

Daiva Mockevičienė, Lina Miliūnienė, Ilona Dobrovolskytė, Renata Žukauskaitė

Šiauliai University, Lithuania

Abstract

Schooling period is particularly important for posture formation because during this period pupils grow and develop quickly, bones and their commissures are intensively forming. The child should also get knowledge about hygiene and healthy lifestyle but still more significance is attached to physical exercises, active physical activities, strengthening all body muscles. 60 eighth form pupils at the age from 13 to 14 years participated in the research. The majority of adolescents choose more than one kind of physical activity but physical education lessons remain the main occupation during which children engage in physical activities. More than a half of adolescents do exercises on their own, less than a half of them go to workouts or the sports club.

Key words: *adolescents' posture, spinal mobility, health, physical activeness.*

Problem of the Research

Posture is not only our outer image which we notice having seen a person. It determines the perception of the *Self*, self-confidence and acknowledgement (Adaškevičienė, 2008). According to Girskis (2011), Balčiūnienė (2009), posture not only represents harmonious development of the person but is also a mirror of good health, self-feeling, mental and emotional state. Kendall, McCreary, Provance, Rodgers, & Romani (2005) describe good posture as a good habit which affects the person's good self-feeling. According to Mallau, Vaugoyeau, & Assaiante (2010), posture monitoring depends on a complicated complex of senses; i.e., sight, hearing, touch, arising from such sensory sources as muscles, skin and joints. Raudoniūtė (2010) states that in the presence of irregular posture or slight spinal deformity a person may not complain of anything and even not notice the formed deformation. If no preventive measures are taken and the person wants to preserve regular posture, in the course of time irregular posture progresses determining spinal problems (back pain, the possibility of intervertebral disc rupture, etc.). According to Astašenko (2008), poor posture can be one of the reasons causing depression, sleeplessness, constant fatigue and other problems.

In the opinion of many scientists (Arcinavičius, Kesminas, & Milčarek, 2004; Hesas, Éderis, & Montagas, 2005; Dadelienė, 2006; Adaškevičienė, 2008), schooling period is particularly important for posture formation because during this period pupils grow and develop quickly, bones and their commissures are intensively forming. In their works scientists (Adaškevičienė, 2004, 2008; Gasparkienė, 2004; Volbekas, 2004) analyse importance of developing children's regular posture. In Adaškevičienė's (2004) opinion, if one wants the child's nice and regular posture, it is necessary to look after it during all childhood period; i.e., from the child's birth, in early and late childhood and in adolescence. Posture is being developed when the perception of the child's straight, nice body image is formed, self-monitoring of the child's posture and self-control are promoted, constantly encouraging the child to observe, analyse and assess his/her posture. The child should also get knowledge about hygiene and healthy lifestyle but still more significance is attached to physical exercises,

active physical activities, strengthening all body muscles (Adaškevičienė, 2004). Graham, Holt/Hale, & Parker (2010) reveal that it is not only important to choose physical exercises according to the child's age, abilities and individual features. In addition, it is very important that physical exercises should become part of children's daily activities, delight the child and that the child should do them with pleasure.

According to the data of the Department of Statistics of the Republic of Lithuania, as of 2013, 27.4 out of 1000 children have irregular posture and 23.2, scoliosis. Irregular posture cases are most often identified for children between 10 and 14 years of age. According to Adaškevičienė (2008), usually irregular posture is most often diagnosed for 11-15 year old adolescents when it is quite distinct. According to the data of Šiauliai city Public Health Bureau, as of 2013, among pupils (1-12 forms) who did a prophylactic checkup, disorders of skeletal-muscular system were identified for 2495 (19,7 per cent) pupils, 431 (3,4 per cent) of whom had scoliosis, and 1424 (11,2 per cent), irregular posture. There are much less healthy children (2006 (29,1 per cent)) than children with health problems (4898 (70,9 per cent)) in Šiauliai city progymnasiums. Data of Šiauliai city Public Health Bureau disclose that in addition to the reducing number of pupils in schools, the number of healthy pupils learning in schools is reducing too. Therefore, it is very important to point out children's health indicators, discover the factors that may be affecting worsening of pupils' health and reveal pupils' attitude to their health, posture and its assessment.

Aim of the research: to disclose the effect of subjective assessment of health and physical activity on adolescents' posture.

Subject of the research: links between adolescents' posture, subjective assessment of health and physical activity.

Research methods

1. Questionnaire survey
2. Assessment of posture and spinal mobility employing standardised test (Schober)

Research participants

The research was attended by 60 eighth form pupils, aged 13-14 years, from one progymnasium of Šiauliai city. There were 27 female pupils and 33 male pupils. Out of all adolescents who took part in the research 45 are physically active, 7 are physically inactive and 8 adolescents state that they do not have opinion about their physical activeness.

Organization and Methods of the Research

The research employed anonymous questionnaire about aspects of pupils' healthy lifestyle, which was drawn up based on scientific literature. The questionnaire consisted of five blocks: 1) demographic and general data, 2) attitude to health and healthy lifestyle, 3) subjective assessment of health, 4) knowledge about health and its determinants, 5) components of healthy lifestyle. Out of a total of 870 eighth form pupils who were questioned employing the questionnaire in Šiauliai city, posture was assessed using Schober's standardized test for 60 of them. Schober's test was intended for assessment of spinal mobility. Assessing spinal mobility, the following was assessed: side leaning; breast area (C7-T12); breast-waist area (C7-S1); waist area (T12-S1); spine stretching (C7-S1). Side leaning was assessed using the tape-measure, measuring the distance from middle fingers of the right hand and the left hand to the floor, standing straight and being leaned. Other indicated areas are assessed using the tape-measure to measure the distance in the indicated areas, standing straight and being leaned. The received difference between the distance standing straight and the distance being leaned is compared with the established norm. Based on Schober's methods, the test was supplemented with measurements: the distance from C7 to scapulas and the distance from the corners of scapulas to the spine, standing straight and being leaned.

Data of posture assessment (N=60) were compared with data of the questionnaire of the target group, considering the following questions given in the questionnaire: Assessment of own health status; Assessment of own physical activity; Places of engagement into physical activity.

Research data analysis was conducted employing SPSS (Statistical Packet for Social Sciences 19.0). Frequencies, means and standard deviation were calculated in the research (Pukėnas, 2005).

Results of the Research

Seeking to disclose the links of posture of the target group with the subjective health assessment and the type of physical activity, the data were analysed considering the following questions of the questionnaire. Table 1 presents the data of assessing posture and spinal mobility, which are compared considering the question about own health care. Better data of assessing static posture are noticed among the respondents who indicated that they looked after their health sometimes and often than among the respondents who took care of their health always and rarely. Mobility of breast and breast-waist areas is best among the respondents who indicate that they look after their health sometimes (3,67 cm; 10,5 cm). Mobility of waist area is best among those respondents who look after their health often (7,35 cm). Too big or too little mobility of waist area affects the formation of inappropriate body position, pose, there is an increased possibility of the appearance of back pain, traumas, micro-traumas and irregular posture formation. Assessment data of spine stretching are better among those who indicate that they often (2,91 cm) and always (2,92 cm) look after their health. Considering general posture assessment data, it can be stated that smaller features of irregular posture show up among the respondents who sometimes and often look after their health. Standard deviation data disclose that the differences of distance from corners of scapulas to C7, standing straight, are similar among all respondents who look after their health sometimes (SD-0,84), often (SD-0,79) and always (SD-0,86). The difference reaches about one centimetre. More distinct asymmetric posture differences, observed among all respondents, are noticed being leaned. Spinal mobility in breast and waist areas is too big in all target groups; this can be influenced by weak spinal muscles. Mobility of spine stretching is too big among those respondents who sometimes (3,33 cm) and rarely (5 cm) take care of their health.

Table 1. Links between Adolescents' Posture and Subjective Health Assessment, Means (cm)

Indicators of static posture and spinal mobility	Care about own health status			
	Rarely (N=1)	Sometimes (N=12)	Often (N=34)	Always (N=13)
Difference between left and right, standing straight (SD)	0	1,5 (1,45)	1,12 (1,07)	1,77 (1,59)
Difference between left and right, being leaned (SD)	2	2,25 (1,42)	2,09 (1,82)	2,08 (1,8)
Difference of distance between corners of scapulas and C7 (standing straight) (SD)	2	1,17 (0,84)	0,74 (0,79)	1,08 (0,86)
Difference of distance between corners of scapulas and C7 (being leaned) (SD)	2	1,25 (1,36)	1,15 (0,96)	0,92 (0,86)
Mobility of breast area C7-Th12(Norm-2,7 cm) (SD)	4	3,67 (1,72)	4,09 (1,58)	3,92 (1,19)
Mobility of breast-waist area C7-S1 (Norm - 10 cm) (SD)	12	10,5 (1,73)	10,06 (2,49)	10,92 (1,85)
Mobility of waist area Th12-S1 (Norm -7,5 cm) (SD)	7	8,08 (2,15)	7,35 (1,92)	8,62 (1,98)

Indicators of static posture and spinal mobility	Care about own health status			
	Rarely (N=1)	Sometimes (N=12)	Often (N=34)	Always (N=13)
Spine stretching C7-S1 (Norm-2,5 cm) (SD)	5	3,33 (2,67)	2,91 (1,46)	2,92 (0,95)

Note: SD – standard deviation

Table 2 presents the assessment data of posture and spinal mobility, which are compared considering the question of own health assessment. Out of 60 respondents 17 respondents indicated that they assessed their health as satisfactory, 31, as good and 12 respondents assessed their health as very good. The biggest share of respondents assessed their health as good (N=31). Asymmetric posture of all respondents is more distinct being leaned than standing straight. The difference of distance between the corners of left and right side scapulas and C7 is the least when the person is standing straight. Mobility of breast area is too big among all respondents. However, the difference is the biggest among those who assess their health as satisfactory (4,12 cm) and as very good (4,17). Mobility of breast-waist area is the best among those respondents who assess their health as good (9,9 cm). Mobility of breast-waist area is too big (10,71 cm; 11,08 cm) among those respondents who assess their health as satisfactory and good. Mobility of waist area is assessed as good among those respondents who assess their health as satisfactory and good. Mobility of waist area of those who assess their health as very good is too big (8, 58 cm). Mobility of spine stretching is too big (3,26cm) among those respondents who assess their health as good. Mobility of spine stretching almost corresponds to the established norm (2,5 cm) among those respondents who assess their health as satisfactory and very good. Considering the data of standard deviation, it was noticed that posture assessment results are similar among all respondents, assessing the distance between corners of scapulas and C7, standing straight and being leaned.

Table 2. Links between Adolescents' Posture and Subjective Health Assessment, Means (cm)

Indicators of static posture and spinal mobility	Assessment of own health		
	Satisfactory (N=17)	Good (N=31)	Very good (N=12)
Difference between left and right, standing straight (SD)	1,06 (1,14)	1,32 (1,22)	1,67 (1,61)
Difference between left and right, being leaned (SD)	1,65 (1,32)	2,16 (1,51)	2,67 (2,47)
Difference of distance between corners of scapulas and C7 (standing straight) (SD)	1 (0,87)	0,94 (0,81)	0,75 (0,87)
Difference of distance between corners of scapulas and C7 (being leaned) (SD)	1,24 (1,25)	0,97(0,88)	1,42 (0,99)
Mobility of breast area C7-Th12 (Norm ~2,7 cm) (SD)	4,12 (1,9)	3,81 (1,30)	4,17 (1,47)
Mobility of breast-waist area C7-S1 (Norm ~ 10 cm) (SD)	10,71 (2,31)	9,9 (2)	11,08 (2,47)
Mobility of waist area Th12-S1 (Norm ~7,5 cm) (SD)	7,41 (2,27)	7,65 (1,62)	8,58 (2,43)
Spine stretching C7-S1 (Norm ~2,5 cm) (SD)	2,82 (1,24)	3,26 (2,02)	2,75 (1,22)

Note: SD – standard deviation

Analysing links between adolescents' posture and subjective health assessment (Table

1 and Table 2), it was noticed that posture assessment data of adolescents who rarely take care of their health are worse than of the ones who take care of it sometimes, often and always. Posture data of adolescents who assess their health as good are better than of other adolescents who assess their health as satisfactory or very good.

Table 3 presents the assessment data of posture and spinal mobility, which are compared in the aspect of persons physically activity. Out of 60 respondents 45 adolescents indicated that they were physically active, 7 were physically inactive and 8 adolescents did not have opinion about their physical activeness. The difference between the left side and the right side, standing straight, is better among physically inactive adolescents (1 cm) and among those who do not have their opinion (1 cm) but being leaned, the difference of this area increases up to 2,29 cm; 2,13 cm. The difference of physically active adolescents between left and right, standing straight, is 1,42 cm; being leaned, it increases up to 2,09 cm. Less increase of the difference demonstrates that the balance of side waist muscles of physically active adolescents is better than of physically inactive adolescents. The difference of distance between corners of scapulas and C7 is better (0,87 cm) among physically active adolescents. The difference among physically inactive adolescents is bigger 1,29. However, being leaned, the difference of distance between corners of scapulas and C7 is bigger among physically active adolescents (1,16 cm) than physically inactive adolescents (0,86 cm). Mobility of breast, breast-waist and waist areas is better among physically active adolescents (3,84 cm; 10,51 cm; 7,8 cm) than among physically inactive adolescents. Mobility of breast area of all respondents is bigger than the established norm. Physically inactive adolescents' spine stretching mobility is too big (4 cm). Standard deviation data demonstrate that assessment results of distance between corners of scapulas and C7, standing straight, are similar among all respondents (SD ~1), compared to the assessment results of other areas.

Table 3. Links between Adolescents' Posture and Physical Activeness, Means (cm)

Indicators of static posture and spinal mobility	Physical activity		
	Physically active (N=45)	Physically inactive (N=7)	Do not have opinion (N=8)
Difference between left and right, standing straight (SD)	1,42 (1,25)	1 (1,91)	1 (0,76)
Difference between left and right, being leaned (SD)	2,09 (1,73)	2,29 (1,49)	2,13 (1,89)
Difference of distance between corners of scapulas and C7 (standing straight) (SD)	0,87 (0,81)	1,29 (1,11)	0,88 (0,64)
Difference of distance between corners of scapulas and C7 (being leaned) (SD)	1,16 (1,02)	0,86 (0,9)	1,25 (1,17)
Mobility of breast area C7-Th12 (Norm ~2,7 cm) (SD)	3,84 (1,44)	4 (1,63)	4,63 (1,77)
Mobility of breast-waist area C7-S1 (Norm ~10 cm) (SD)	10,51 (2,28)	9,14 (2,27)	10,63 (1,51)
Mobility of waist area Th12-S1 (Norm ~7,5 cm) (SD)	7,8 (2,07)	7,29 (1,89)	8 (1,85)
Spine stretching C7-S1 (Norm ~2,5 cm) (SD)	2,93 (1,56)	4 (2,58)	2,75 (1,28)

Note: SD – standard deviation

Table 4 presents the assessment data of posture and spinal mobility, which are compared considering the question about the place of person's engagement in physical activity. Out of

60 respondents 43 adolescents indicated that they attended physical education lessons; 23, workouts; 15, the sports club; 35, did exercises on their own; 5 adolescents attended the dance club. Considering the type of adolescents' physical activity, it can be stated that the majority of respondents choose more than one type of physical activity. However, physical education lessons are the main kind of physical activity. The difference between the left side and the right side, standing straight, is the biggest (1,61 cm) among adolescents who attend workouts and the least (1,13 cm), among adolescents who attend the sports club. Being leaned to the side, the difference between the left side and the right side is the biggest (2,4 cm) among those adolescents who attend the dance club and the least (1,87 cm), among adolescents who attend the sports club. Assessing this area, there should be no difference; i.e., left must be equal to right. The difference of distance between corners of scapulas and C7, standing straight, is the biggest (1,20 cm) among adolescents who attend the dance club and the least (0,78 cm), among adolescents who go to workouts. Being leaned, the difference of adolescents who attend the dance club reduces down to 1 cm, the difference of other respondents, being leaned, increases but not much. Analysing the results of spinal mobility, it was noticed that spinal mobility of adolescents who attended the dance club is the biggest, compared with other respondents. Such assessment results can be influenced by specificity of the activity chosen by adolescents. However, it is very important to point out that too big spinal mobility and flexibility can affect the possibility of the appearance of spine problems if muscles are not correspondingly strengthened. Best breast mobility data are among adolescents who go to workouts. Mobility of breast-waist area is the best (10,02 cm; 7,49 cm) among adolescents who attend physical education lessons or the sports club; data correspond to the established norms. Mobility of spine stretching is the best (2,67 cm) among respondents who attend the sports club. Standard deviation data help to reveal that all target group has similar posture differences, assessing the distance between corners of scapulas and C7, standing straight and being leaned (SD ~1).

Table 4. Links between Adolescents' Posture and Type of Physical Activity, Means (cm)

Indicators of static posture and spinal mobility	Place of persons engagement into physical activity				
	Go to physical education lessons (N=43)	Go to workouts (N=23)	Go to sports club (N=15)	Do exercises on their own (N=35)	Go to dance club (N=5)
Difference between left and right, standing straight (SD)	1,28 (1,24)	1,61 (1,27)	1,13 (0,99)	1,46 (1,50)	1,20 (1,64)
Difference between left and right, being leaned (SD)	2,19 (1,8)	2,35 (1,30)	1,87 (1,19)	1,97 (1,95)	2,40 (1,52)
Difference of distance between corners of scapulas and C7 (standing straight) (SD)	0,84 (0,72)	0,78 (0,8)	0,93 (0,88)	1,06 (0,94)	1,20 (0,84)
Difference of distance between corners of scapulas and C7 (being leaned) (SD)	1,09 (1,09)	0,91 (0,67)	1,07 (0,79)	1,23 (1,17)	1 (0,71)
Mobility of breast area C7-Th12 (Norm ~2,7 cm) (SD)	3,93 (1,47)	3,70 (1,22)	3,73 (1,16)	3,86 (1,48)	4,20 (1,64)
Mobility of breast-waist area C7-S1 (Norm ~10 cm) (SD)	10,02 (2,09)	10,70 (2,34)	9,47 (1,85)	10,11 (2,23)	11,20 (2,39)
Mobility of waist area Th12-S1 (Norm ~7,5 cm) (SD)	7,49 (1,97)	8,61 (1,85)	7,47 (1,95)	7,74 (2,08)	8 (1,87)

Spine stretching C7-S1 (Norm ~2,5 cm) (SD)	3,02 (1,71)	2,83 (1,40)	2,67 (1,23)	3,14 (1,68)	4 (2)
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Note: SD – standard deviation

Analysing the links between the type of adolescents' physical activity and posture (Table 3 and Table 4), it was noticed that physically active adolescents' posture is better than the posture of physically inactive adolescents and of those who do not have opinion about their physical activeness. Considering the type of the physical activity, it can be stated that better posture is characteristic to those adolescents who attend the sports club or physical education lessons. Posture assessment data of adolescents who go to the dance club, considering the established standards, are far worse than of other adolescents.

Conclusions

1. The majority of adolescents look after their health often but assess their health as good. More than a half of adolescents indicated that they were physically active; the remaining share indicated that they were physically inactive or did not have opinion about their physical activeness. Adolescents who do sports on their own have to receive sufficient knowledge about organisation, dosage of physical activities, benefit and possible harm of physical exercises.
2. Mobility of breast area and spine stretching, spinal mobility among all adolescents is too big, assessing according to the established norm. Analysing links between adolescents' posture and subjective health assessment, it was noticed that posture assessment data of adolescents who rarely took care of their health were worse than the ones of adolescents who sometimes, often and always looked after their health. Posture of physically active adolescents is better than the one of physically inactive adolescents.
3. Considering the type of physical activity, it can be stated that posture is better among adolescents who go to the sports club or physical education lessons. Posture assessment data of adolescents who go to the dance club, considering the established standards, are far worse than of other adolescents. Such assessment results may be affected by specificity of the activity chosen by the target group.

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LINKS BETWEEN ADOLESCENTS' SUBJECTIVE HEALTH ASSESSMENT, TYPE OF PHYSICAL ACTIVITY AND POSTURE

Summary

Daiva Mockevičienė, Lina Miliūnienė, Ilona Dobrovolskytė, Renata Žukauskaitė
Šiauliai University, Lithuania

Posture is not only our outer image which we notice having seen a person. It determines the perception of the *Self*, self-confidence and acknowledgement (Adaškevičienė, 2008). According to Girskis (2011), Balčiūnienė (2009), posture not only represents harmonious development of the person but is also a mirror of good health, self-feeling, mental and emotional state. Kendall, McCreary, Provance, Rodgers and Romani (2005) describe good posture as a good habit which affects the person's good self-feeling. According to Mallau, Vaugoyeau, Assaiante (2010), posture monitoring depends on a complicated complex of senses; i.e., sight, hearing, touch, arising from such sensory sources as muscles, skin and joints. Raudoniūtė (2010) states that in the presence of irregular posture or slight spinal deformity a person may not complain of anything and even not notice the formed deformation. If no preventive measures are taken and the person wants to preserve regular posture, in the course of time irregular posture progresses determining spinal problems (back pain, the possibility of intervertebral disc rupture, etc.). According to Astašenko (2008), poor posture can be one of the reasons causing depression, sleeplessness, constant fatigue and other problems. **Aim of the research:** to disclose the effect of subjective assessment of health and physical activity on adolescents' posture. **Subject of the research:** links between adolescents' posture, subjective assessment of health and physical activity. **Research methods:** Questionnaire survey, Assessment of posture and spinal mobility employing standardised test (Schober). **Research participants.** The research was attended by 60 eighth form pupils, aged 13-14 years, from one progymnasium of Šiauliai city. There were 27 female pupils and 33 male pupils. Out of all adolescents who took part in the research 45 are physically active, 7 are physically inactive and 8 adolescents state that they do not have opinion about their physical activeness. **Organization and Methods of the Research.** The research employed anonymous questionnaire about aspects of pupils' healthy lifestyle, which was drawn up based on scientific literature. The questionnaire consisted of five blocks: 1) demographic and general data, 2) attitude to health and healthy lifestyle, 3) subjective assessment of health, 4) knowledge about health and its determinants, 5) components of healthy lifestyle. Out of a total of 870 eighth form pupils who were questioned employing the questionnaire in Šiauliai city, posture was assessed using Schober's standardized test for 60 of them. Schober's test was intended for the assessment of spinal mobility. Assessing spinal mobility, the following was assessed: side leaning; breast area (C7-T12); breast-waist area (C7-S1); waist area (T12-S1); spine stretching (C7-S1). Side leaning was assessed using the tape-measure, measuring the distance

from middle fingers of the right hand and the left hand to the floor, standing straight and being leaned. Other indicated areas are assessed using the tape-measure to measure the distance in the indicated areas, standing straight and being leaned. The received difference between the distance standing straight and the distance being leaned is compared with the established norm. Based on Schober's methods, the test was supplemented with measurements: the distance from C7 to scapulas and the distance from the corners of scapulas to the spine, standing straight and being leaned. Data of posture assessment (N=60) were compared with data of the questionnaire of the target group, considering the following questions given in the questionnaire: Assessment of own health status; Assessment of own physically activity; Places of engagement into physical activity. Research data analysis was conducted employing SPSS (Statistical Packet for Social Sciences 19.0).

Results of the research let to draw **conclusions:** The majority of adolescents look after their health often but assess their health as good. More than a half of adolescents indicated that they were physically active; the remaining share indicated that they were physically inactive or did not have opinion about their physical activeness. Adolescents who do sports on their own have to receive sufficient knowledge about organisation, dosage of physical activities, benefit and possible harm of physical exercises. Mobility of breast area and spine stretching, spinal mobility among all adolescents is too big, assessing according to the established norm. Analysing links between adolescents' posture and subjective health assessment, it was noticed that posture assessment data of adolescents who rarely took care of their health were worse than the ones of adolescents who sometimes, often and always looked after their health. Posture of physically active adolescents is better than the one of physically inactive. Considering the type of physical activity, it can be stated that posture is better among adolescents who go to the sports club or physical education lessons. Posture assessment data of adolescents who go to the dance club, considering the established standards, are far worse than of other adolescents. Such assessment results may be affected by specificity of the activity chosen by the target group.

SUBJECTIVE WELLBEING OF ELDERLY PEOPLE: SOCIAL DOMAIN ASPECT

Gintarė Vaznonienė

Aleksandras Stulginskis University, Lithuania

Abstract

This article discloses the interrelations between social domain and subjective wellbeing of elderly people in Lithuania. The changes after the reestablishment of the independence of Lithuania challenged wellbeing differentiation in the society, which determined that some elderly people feel low wellbeing while others live normally. The influence of social domain on the subjective wellbeing among elderly people has shown that higher ratings of subjective wellbeing are based on strong social relations, family help in individual care while the state is a guarantee of financial resources, the level of social integration depends on the activity of various institutions as well as on different fears and social problems.

Key words: *wellbeing, subjective wellbeing, elderly people, social domain.*

Introduction

In this modern society increasingly bigger attention is given to human, social groups, society's wellbeing. Our life is affected by various internal and external factors, previous positive or negative experience that create different environment in which we live. During life course people gain specific experience, skills, knowledge etc., but in each life stage there is a challenge to live and feel well. Accordingly, the question of human, social groups, society's wellbeing is developed in separate social sciences: starting with psychology, sociology, economics, etc (Easterlin, 2003; Hoff, 2006; Veenhoven, 2007; McAllister, Camfield & Woodcock, 2009; Measuring Well-Being for Development, 2013, etc.). It shows that being or feeling well should be a natural state of each human, but in reality it is usually a desirable thing. This distinction between subjective wellbeing (also called "self-reported wellbeing") and conditions of real life challenges is that for some people their wellbeing is evaluated quite high, though for others there is a need to improve it. Especially it is seen when analysing distinct components (or life domains) of subjective wellbeing.

In recent decade, the interest in subjective wellbeing has increased significantly among researchers, politicians, national statistical offices, the media, and the public. The value of this information is grounded on potential contribution to monitoring the economic, social, and health conditions of populations, social groups and potentially informing policy decisions across these domains (Layard, 2005; National Research Council, 2013). Since in this article the situation of elderly people is analysed it provides the possibility to evaluate the present social living of elderly people and how it contributes to their subjective evaluations of wellbeing. A Lithuanian case shows that the interest in subjective wellbeing in general and especially of elderly people is in developing process. Most literature is based on medicine and quite a narrow viewpoint is given about that in social sciences. This enables to develop new researches based on elderly people's perception of their subjective wellbeing and interrelations with separate life domains. Considering the issues above, **the object of this research** is the interrelations between social domain and subjective wellbeing of elderly people. **The aim of the research** is to analyse social domain interrelations with subjective wellbeing of elderly people. **The objectives of the research** are as follows: 1) to define subjective wellbeing conception and its domains; 2) to analyse social domain elements influencing subjective wellbeing of elderly people; 3) to explore the conclusions of the research.

Implementing the research the following research methods were used: analysis and synthesis of scientific literature (for revealing the conception of subjective wellbeing and the importance of social domain to elderly people's subjective wellbeing); comparative and

statistical analysis, survey method (applying questionnaire) were applied for the purpose to show how different elements of social domain affect elderly people's subjective wellbeing.

The results of the research are presented starting with introducing the general notion of wellbeing and going on to the features of subjective wellbeing, giving the empirical research methodology, hereafter the importance of social domain interrelations with subjective wellbeing of elderly people are disclosed.

The results of research

Conceptualising wellbeing and subjective wellbeing

Defining wellbeing it is necessary to consider the fact that it has formed in distinct societies. Firstly this definition (Schuessler & Fisher, 1985; Milaševičiūtė, Pukelienė & Vilkas, 2006; National Research Council, 2013) arose in the 7th decade of the 20th century as the president of the United States of America L. Johnson remarked that it is not sufficient to measure life taking into consideration the fact how many items members of the society can obtain but it is purposeful to assess how it influences their wellbeing. This remark was not left without consideration whereas the fundamental conception of wellbeing as the expression of worldly goods/values/resources gradually obtained other meanings as well. A number of researches (Johansson, 2001; Easterlin, 2003; Camfield, 2005; Royo & Velazco, 2006; European Social Survey, 2013) have reported that traditionally widely used dimensions were only economic (e.g. gross domestic product estimated for one inhabitant; household income, consumption expenditure, etc.). Afterwards economists, psychologists, sociologists and a number of other researchers determined that such a conception of wellbeing is restricted due to the fact that it does not encompass other significant aspects of people or society's wellbeing (Easterlin, 2003; Quality of Life throughout the World, 2005; Kaimiškių vietovių įtaka Lietuvos regionų gyvenimo kokybei ir sanglaudai, 2006; Servetkienė, 2013). In this respect it is significant to mention that researches still do not have a unified opinion concerning the conception of wellbeing and especially due to the estimation dimensions or criterion. It was noted that emphasizing only economic components of wellbeing does not solve such social problems of society as poverty, mortality rate, insufficient literacy, health, etc. Recent evidence of wellbeing conception analysis suggests that it reveals people's features and characteristics of circumstance and cultural conditions in comparison with standard or certain level, satisfaction with appropriate situation. It can be noticed that wellbeing of individuals who belong to modern society or separate social groups is estimated as a significant basis of universal development and it actualizes the importance of wellbeing research in contemporary social studies. It is also naturally accepted that wellbeing has twofold understanding as *objective* and *subjective*.

The definition of *subjective wellbeing* originated in studies and researches from psychology science. Psychologists have always sought to perceive and to reveal people's evaluation of their lives (Diener et al., 2003; Camfield, 2005). Interdisciplinary interest in subjective wellbeing enforced various scientists who are concerned with the questions related to human entity, individual demands, value expression and other issues to focus on this field of research. It should be noted that the researches and analysis of subjective wellbeing has grown to the object of theoretic discussions and empirical researches. Subjective wellbeing has been linked with recognition and individual's emotional experiences that affect his/her life. In this respect it has become a subjective feeling of life completeness which arises while supplying spiritual recognition, communication, aesthetical and physiological demands. What is more, it is a factual or subjective equivalent of idealism and existing. Psychological wellbeing aspects were admitted as very significant individual's aspects of social and private life (Diener & Fujita, 1995; Veenhoven, 2002). In connection with the previous points it is significant to mention that subjective wellbeing as the object of research was included into clinical, intercultural, organisations and other researches. In this respect the central figure is a separate individual and his/her personal conception of wellbeing. Increasing interest of subjective wellbeing in science encouraged interdisciplinary debates concerning various matters (Strack, Argyle & Schwartz, 1991; Siegrist, 2003; Ruta, Camfield & Donaldson, 2006): how it can be investigated and

measured, what kind of factors influence subjective wellbeing, how it can be assessed, what theoretical assumptions and methodological approach there can be, etc.

One more factor indicating subjective wellbeing is personal experience of various situations, events when an individual undergoes happy or unhappy empathy and has to make a decision how to behave further. It must be noted that these decisions are formed in social environment to which the person belongs (Siegrist, 2003; Diener, 2005). This fact indicates that diverse positive and negative experiences are suffered or particular emotions assert during social interaction between various individuals/various situations. Accordingly this definition is also described as a socially determined construct comprising various aspects of real life which influence each social group's/individual's wellbeing.

As it is pointed in the book "Subjective Well-Being: Measuring Happiness, Suffering, and Other Dimensions of Experience" (National Research Council, 2013) subjective wellbeing is multifaceted and as an analytic construct it can be defined as *evaluative wellbeing* which refers to the judgments of how satisfying one's life is (these judgments are sometimes applied to specific aspects of life, such as relationships, community, health, and work) and *experienced wellbeing* which is concerned with people's emotional states and may also include the effects associated with sensations and other factors such as feelings of purpose or pointlessness that may be closely associated with emotional states and assessments of those states.

It is typical to a subjective wellbeing conception that it starts from *macro* viewpoint and continues till *micro* viewpoint. Thus it means that not the opinion of the majority of people (i.e. all the people of the country) is considered but the focus of attention is dedicated to subjective evaluation of social groups/particular individuals. In this respect the idea of localism arises because the phenomena of society more and more are assessed in the context of globalisation (Veenhoven, 1996; Camfield, 2005; McAllister, Camfield & Woodcock, 2009). The encouragement of such attitude enables to identify the values that are significant to people and priorities that are used while seeking better wellbeing for life.

Taking into account the comments of World Health Organization (Furmonavičius, 2001) it is considered that subjective wellbeing is a difference between personal expectations (hopes) and real opportunities while achieving/realizing it. It is obvious that wellbeing is treated as a comparable construct which can be analysed by various layers (Felce & Perry, 1995; Johansson, 2001; Veenhoven, 2002; Wellbeing Concepts and Challenges, 2005; Royo & Velazco, 2006):

- what individuals have (want to have) and do not have;
- conceptual and empirical grounding and definition of wellbeing;
- the things people have and desire for;
- comparison of wellbeing with each other;
- having of aims and opportunities to realize them;
- conception of what things encourage and limit the rise of wellbeing;
- conception of wellbeing among separate individuals, social groups, nations;
- positive and negative effects of life that influence the attitude towards your own cognition of wellbeing, etc.

Generalizing *subjective wellbeing* is a subjective individual's conception about his/her wellbeing or life which is based on experience, empathy and evaluation in different fields of life: social, economic, political, cultural, environmental, personal.

Social domain in subjective wellbeing context

The analysis of subjective wellbeing conception reveals that it is broad and diverse concerning its content. Different researchers (Gasper, 2005; Verdugo et al., 2005; Bjornskov, Fischer & Axel, 2008) admit that the measurement of wellbeing should be based on separate individuals' domains and index analysis equally. It would provide the answer to the question what should be measured. The *analysis of life domains* (i.e. social relations, leisure, work, physical condition, etc.) appeals to particular individual's experiences in different fields of life although it is more significant what influence those fields have on wellbeing generally but not the number of the fields which are examined. As Cummins (1996), Veenhoven (2002), Rojas (2004) claim person's individual conception of wellbeing is affected by various life

domains. Following previous arguments it is obvious that it must be analysed how separate life domains affect people's lives and what things improve/worsen their wellbeing at local, regional, national or international levels.

In the United Kingdom 29 indicators including "cohesive society features" from three cohesive development domains – social development, increase of economy and environment protection were used for local level observation (Local Quality of Life Counts: a Handbook for a Menu of Local Indicators of Sustainable Development, 2000). In the global project account of social alteration research (Quality of Life throughout the World, 2005) only a few domains capturing wellbeing were distinguished: health condition, economic wellbeing, education, independence, satisfaction of life. It is noticed that the number of wellbeing domains depends on the fact whether the researcher investigates objective or subjective wellbeing. It is worth noting that objective indicators in diverse life domains can be restricted meanwhile subjective data can reveal more colourful and useful results and can highlight more components informing concerning wellbeing (Praag et al, 2001). Various authors (Mercer, 2005; Gataūlinas, 2010; Krutulienė, 2012) distinguish the following life domains influencing subjective wellbeing: political and social surroundings; economic surroundings; socio-cultural surroundings; medicine facility and health; learning and education; public facility and transport; recreation; consumption goods; accommodation; natural surroundings; immaterial aspects of wellbeing like social relations and political factors.

The most significant events of life and circumstances concerning family and marriage (Fahey, Nolan & Whelan, 2003; Helliwell & Putnam, 2005, etc.) are estimated as the closest (internal) environment that influences initial feeling of wellbeing and positive changes; it is worth noting that while assessing wellbeing for people social relations to external environment – community, associates, etc. are relevant. Camfield (2005) claims that individuals tend to assess their wellbeing more positively if their extent of integration to society is bigger. It is clear from the above that the main disadvantage while assessing the importance of social relations is the fact that there is no exact indicator allowing determining the connections between social relations and subjective wellbeing.

Since in this article subjective wellbeing of targeted *elderly people* group is analysed it should be highlighted that in most studies in the field of general wellbeing connections with separate life domains have revealed that social domain has a great significance to elderly people (Hoff, 2006; Vazonienė, 2011; Skučienė, 2012). Giving in details the significance of social domain to subjective wellbeing can be based on the following remarks:

- breakaway/departure of labour market motivates to look for new social domains or deepen the existing ones; demand to communicate closely with members of the family increases;
- strengthens the feeling of loneliness (especially after losing the second-half);
- different feeling of time originates – you have to plan your activity and everyday life newly;
- changed position (when you become a retired person) challenges to greater demand of social care and frequent attendance of various social institutions (especially concerning health);
- various social problems that early were not so important develop, etc.

Following the above mentioned factors we can easily find that social domain in the evaluation of subjective wellbeing takes an important place. It involves different social life elements (like health and education, local facilities, formation of social surroundings, involvement (empowering) and partnership, etc.) which affect every person's present and future life. Most of the analysed literature reveals that social domain is very important when applying it to some social group. As it was already mentioned elderly people is the social group who took part in the research and their role and attendance is much more grounded in further sections.

Methodology of empirical research

Traditional wellbeing research approaches are based on objective evaluation (outside information) i.e. while applying various indicators for a particular group/locality/country. Meanwhile empirical researches of subjective wellbeing are accomplished using different methods that enable to reveal subjective opinion, attitudes, and value. The following methods that are mostly used in evaluating subjective wellbeing could be mentioned: self-reports; various indexes and scales; people's opinion researches applying questionnaire interview method, etc.

Conceptualisation of wellbeing involves diverse conceptions, components and analysis methods of this definition. Thus, bearing in mind the previous points the importance of questionnaire survey implementing the researches of subjective wellbeing in this article is surveyed. A number of researches (Diener, Scollon & Lucas, 2003; Ventegodt & Merrick, 2003; Veenhoven, 2009) admit that questionnaire survey is one of the most popular subjective wellbeing research methods. Therefore, the questionnaire used for this research was based on the examples of international wellbeing questionnaire researches that are implemented in various countries (Eurobarometer researches, European social research, SHARE research, etc.) or within separate countries i.e. national, regional, local level wellbeing researches of countries.

Highlighted blocks of questions involved some life domains (social, economical, personal, environmental and political) that according to previous researches especially affect individual's subjective wellbeing. The key argument is that life domains influencing wellbeing are purposefully arranged in one way direction i.e. it goes from micro (internal environment – close/intimate) to macro (external) environment.

Most of the questions in the questionnaire were focused on the actualisation of *social domain* approach. The aim of the questions of this section was to investigate *the significance of social relations to involvement/integration of elderly people, to social problems and their connections with subjective wellbeing*. In this respect wellbeing evaluation of analysed individuals' age-group very often unfolds through social context. It is significant to mention that a social context is one of the most important domains influencing the wellbeing of elderly people's lives. Following all mentioned before a great attention was focused on social relations (social interaction), social participation/integration and social problems of elderly people. Accordingly the demand of this social group in order to maintain social relations can be perceived in three different ways:

- on the one hand, physical condition often requires a closer relation with family, relatives. It is no wonder that namely a close environment (relatives, neighbours, friends, former associates, etc.) becomes the most relevant factor while seeking to remain strong and necessary as much as it is possible;
- on the other hand, the demand of social relations/social integration in elderly age calls certain challenges because this group falls out of labour market and individuals lose their ordinary role in society. It is obvious that such alterations strongly affect certain individuals and due to this fact they face the danger of social disjuncture;
- elderly people are free to choose the object of communication (it is stated that they do have spare time, ideas or hobbies that are not realized and they are able to unfold freshly). However this attitude is not always correct because not all people's material wellbeing provides the freedom of choice and due to it human liberty and opportunities are restricted.

Moreover, the domain of social relations is concerned with psychological working of elderly people. It must be noted that such points as human loneliness are very significant. Due to the fact that people of employable age are busy with production and consumption, their intercommunication lacks of time and willingness. A lonely person becomes strange to himself/herself. On the one hand, the alienation syndrome can be linked to the pursuit of self-importance, on the other hand, it can be connected to other person's depreciation or lack of evaluation. Following the previous ideas it could be stated that under these circumstances the shortage of confidence in close people or friends and lack of support when it is needed arise

(Jurgelėnas et al., 2008). Thus, the feeling of loneliness in the declension of years becomes a difficult probation for elderly people (especially for women, because their lifespan is longer) and due to this fact the demand of proximity, communication increases.

In this paper the respondents (targeted group) were elderly people, i.e. Lithuanian people, senior (elderly)/retiring age people. Assuming the data of the Lithuanian statistics department (Statistikos departamentas, 2012) it must be noted that such age limit for elderly (retirement age) people is applied: women's retirement age is from 60 years, men's retirement age is from 62,5 years. To identify the number of the respondents nonprobability sampling was applied.

The importance of social domain impact to elderly people's subjective wellbeing can be proven according to a few reasons:

- Lithuanian society, like global society expeditiously advances in age;
- elderly people are one of the most potential social groups that can become socially excluded because the risk of vulnerability increases with age;
- elderly people's vote can contribute to their decrease as socially isolated people;
- elderly people are often discriminated among other social groups (i.e. in comparison with a junior generation);
- elderly people can have intelligent, relevant suggestions how to improve their wellbeing;
- subjective wellbeing research of elderly people could supplement already existing information base concerning their life patterns because subjective wellbeing of this social group in the context of Lithuania is analysed not enough in social sciences and mostly in medicine (Furmonavičius, 2001; Jurgelėnas et al., 2008; Juozulynas et al., 2009; Skučienė, 2012; Orlova, 2014 admit that subjective wellbeing researches of elderly people is an innovation because the attention is focused on other vulnerable groups (i.e. children, women, risk families), etc.)

Conducting the survey 602 people were involved in the research. While performing people's selection particular population characteristics were considered: the distribution of respondents according to sex and age groups (60-69, 70-79, 80 and more years of age) should be close to the distribution of elderly people in Lithuania. Consequently, there were 413 women (69 percent) and 189 men (31 percent) in the empirical research. The average of their life was 70,3 years, median was 69 years and mode is 68 years. Respondents' age in variation line ranges about 6,7 years. The lowest possible respondent's age was 60 years (as it was noted above it is one of the elderly age indicators which is applied for women) and the oldest person who participated in the survey was 93 years old.

Insights of empirical research

The research of subjective wellbeing of elderly people giving attention to the social domain aspect revealed miscellaneous results. It was complicated for the respondents to define their current position (various possible categories illustrating socioeconomic position were combined). The respondents had to indicate how else they could define their condition: working, unemployed, ill, disabled, destitute, living with their children, relatives, etc. What is more, the establishment of position was significant because it broadened knowing about socioeconomic condition of elderly people. Yet as the majority of elderly people indicated that they do not work (522), the working ones (mostly belonging to the group of 60-69 years – their number was 70) were glad to have an opportunity to be involved in labour market. Other versions of position are linked to health condition, disablement or poverty characteristics. It is clear from the above that namely the question concerning the respondents' socioeconomic position conditionally enabled to specify/supplement other questions that justify socioeconomic life domain. Referring to the common estimation characteristics of subjective wellbeing of elderly people it is significant to consider what subjective opinion arises while estimating wellbeing according to particular features. It has been found out that family status (1 Table) performs an important part in wellbeing estimations of elderly people.

Table 1. Evaluation of subjective wellbeing according to respondents' family status, percentage

Family status	Very good	Good	Moderate	Bad	Very bad
Married	1,5	17,3	61,6	18,8	0,7
Widowed	0,4	12,9	54	29,4	3,3
Divorced	3,1	18,8	50	28,1	0
Not married	10	10	60	20	0
Partnership	0	50	25	0	25
Average	1,2	15,4	57,2	24,1	2

The research results revealed that although there is a prevailing internal estimation of wellbeing, the responses vary according to individual family status. Thus, it must be noted that single or living in common-law marriage individuals evaluate wellbeing best. Furthermore, it is important to emphasise that there is a minority of these respondents in the total number of people who were questioned thus it can be stated that the distribution of responses is more important among other groups. It has been found out that widowers estimate wellbeing worst. Although the loss of spouse in this age can be realised as a normal process of life it leaves a significant negative effect for further life.

Subjective opinion was examined according to what socioeconomical group respondents attribute themselves (2 Table).

Table 2. Evaluation of subjective wellbeing according to respondents' socioeconomical group, percentage

Evaluation	Social economical group				Average
	Can barely live	Live poor	Live normal/ Substantial	Live very good/ good	
Very good/good	3,4	3,0	19,4	36,8	16,6
Moderately	37,9	54,3	62,5	50,6	57,2
Very bad/bad	58,7	42,7	18,1	12,6	26,2
Overall	100,0	100,0	100,0	100,0	100,0

The given data indicate that better subjective wellbeing estimations depend on better evaluation of a socioeconomical status. On the contrary if person ascribes himself/herself to "barely can live" or "live poor" obviously his/her wellbeing estimations decrease.

To return to the earlier research insights, wellbeing is mostly influenced by a few human life domains: personal, economic, cultural, environmental and political (Table 3). The majority of observed interrelationships are weak, only links of average strength were obtained between sociocultural and socio-political life domains. Taking into consideration the investigation results it is obvious that firstly their wellbeing is influenced by *social* and *economic* (that has given underlying 1-2 points in the 6 points scale), then personal life domains.

Table 3. Statistical indicators of wellbeing domains distribution

Indicators	Social (family, friends, neighbours)	Economical (income, expenditure)	Personal (emotional, physical, psychological) behaviour	Environmental (safety, territorial attractiveness)	Cultural (leisure, entertainment, etc.)	Political (election, freedom of speech, etc.)
Average	2,10	2,19	2,49	4,13	4,71	5,37
Median	2,00	2,00	2,00	4,00	5,00	6,00
Mode	1	1	3	4	5	6

Indicators	Social (family, friends, neighbours)	Economical (income, expenditure)	Personal (emotional, physical, psychological behaviour)	Environmental (safety, territorial attractiveness)	Cultural (leisure, entertainment, etc.)	Political (election, freedom of speech, etc.)
Standard deviation	1,176	1,163	1,263	0,933	0,992	1,131

The data show that the respondents gave priority to what mostly affects their subjective wellbeing. Mode 1 point, average and median as 2 points (e.g. for social domain) means that elderly people put less attention to other wellbeing domains and their better life is related to overall satisfaction in social domain (or social sphere). To continue with, the characteristics of social life domain and connections with subjective wellbeing of elderly people revealed that the influence of social life domain on wellbeing of elderly people is usually estimated in the context of social relations (importance of close/distant surroundings), social attendance/integration and social problems. Having considered the fact that elderly people can be attributed to social disjuncture groups it is obvious that some questions from social domain have been analysed in the context of social disjuncture factors of elderly people.

Maintenance of social relations for elderly people is one of the ways to integrate into society. What is more, the opportunity to speak out, the demand to be heard for elderly people is very important. Therefore, elderly people were asked whether they have someone to discuss their problems with. Referring to the results it is obvious that most people indicated “yes, of course/probably” (almost 80 percent), while people who doubted or did not have anyone were 20 percent, in connection with the last points it is significant to emphasise that people who have a spouse or often communicate with their children/grandchildren or live with them have better communication opportunities, feel more necessary. In addition, it was considered whether relatives often visit elderly people if they do not live together (Fig. 1).

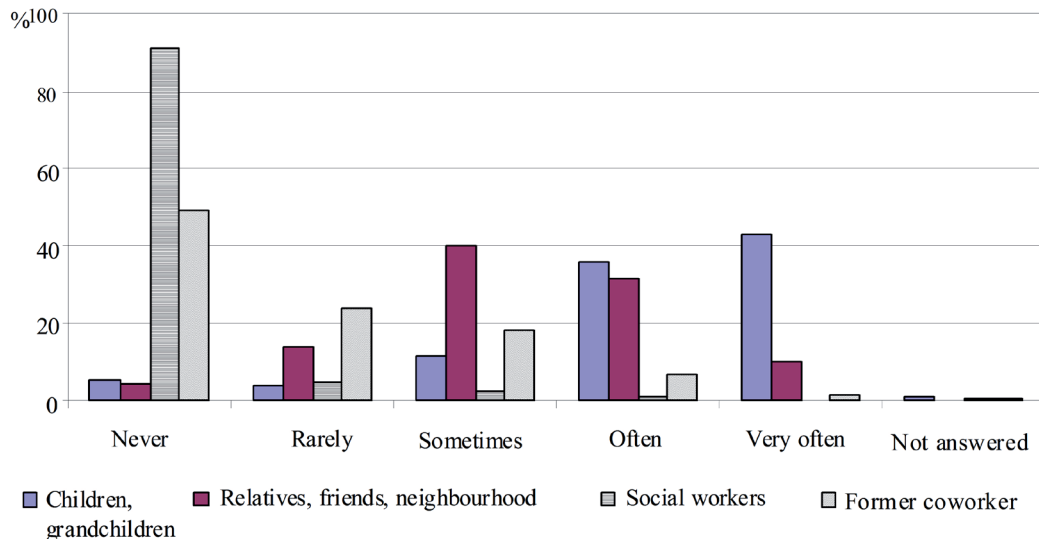


Figure 1. Respondents' opinion about how often other people visit elderly people, percentage

The data of the research revealed that people from close environment for example children/grandchildren, relatives, neighbours usually visit elderly people. However, the gap with people of remote (external) environment apparently emerges. On the one hand, the fact that social workers hardly ever visit elderly people can mean that their help is not needed,

on the other hand, it may indicate that specialists of this field insufficiently or wrongly fulfil their work. So far the research has demonstrated that former associates are not active while maintaining relations with retired people (almost 73 percent indicated that former associates “never/rarely” visit them). However it can be a choice of elderly people or emerging restricting factor of communication of diverse generations (this factor is mentioned as social disjuncture of elderly people and as influencing wellbeing factor).

One more significant question which is important while indicating the relations of elderly people with other people was the estimation of the feeling of necessity (Fig. 2). According to the answers of the respondents it has been found out that elderly people are the most necessary to children/grandchildren. Furthermore, people who are married are necessary to spouse (43,2 percent) but individuals who are divorced indicated answers expressing doubt or pointed that they are not necessary. It must be noted that 42 percent of people felt necessary to acquaintances, friends and 49 percent expressed doubts concerning their necessity. It seems that this estimation of the feeling of necessity can be associated with elderly people’s qualities of activeness/passiveness. It is noticeable that self-starter people feel more necessary to friends, neighbours, local community.

The evidence suggests that the role of local community is unnoticed in the life of elderly people because only 10,3 percent of elderly people agree that they are important to local community.

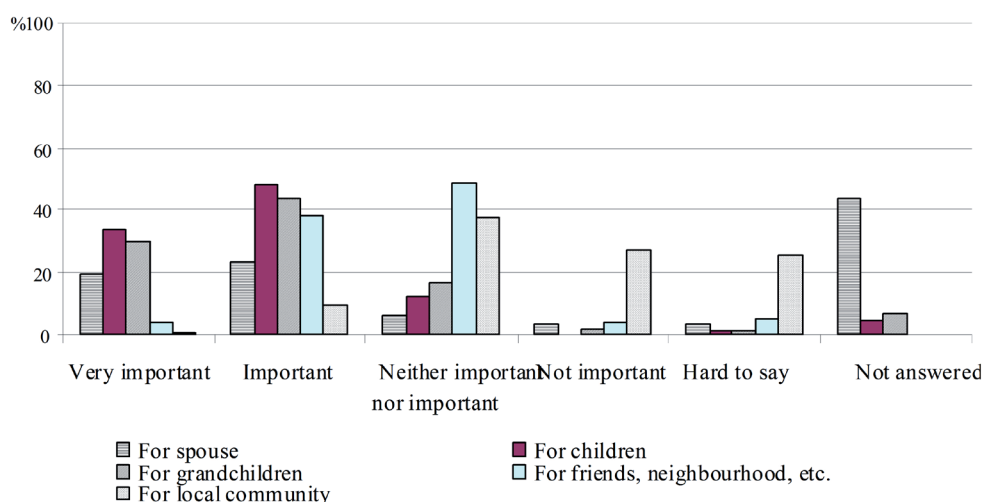


Figure 2. Evaluation of being in need of other people, percentage

It is clear from the factorial analysis that 3 factors can be distinguished: factor number 1 constitutes 23,4 percent of the whole variation and includes family members (children/grandchildren/spouse), factor number 2 constitutes 20,7 percent of the whole variation (involves the individuals of close surroundings – neighbours, friends, acquaintances/local community/former associates) and factor number 3 composes 12 percent of the whole variation (social workers representing distant/outer environment).

The ability to maintain social relations is linked not only to communication generally but to other people’s attendance as well. Due to this fact the respondents were examined how often they make a visit (gather in public) or invite other people. The responses show that 47,8 percent of elderly people “more rarely than once or once in a month” make a visit/invite guests, 20,6 percent of people indicated that more often than once whereas 27,6 percent indicated once or several times in a week.

The evidence suggests that the maintenance of social relations or its demand is largely revealed through a particular activity. The respondents were asked what they do or what activity

would be necessary for them, what events they visit. Taking into consideration the respondents' stage of age possible activities were indicated. Although elderly people indicated a few activities in which they are involved but mostly pointed that they "read the press/books/listen to the radio", "tidy the house", "meet with friends, neighbours", "go for a walk". Furthermore, the activities that were indicated as least engaging were the following: "attendance of clubs/circles", "care of animals", "attendance of community meetings". Accordingly, taking the results into account it is noticeable that passive activity which is held in their own surroundings, houses is more dominant. What is more, it can be stated that such distribution reveals that elderly people do not want to be involved in society activities or their demand to be included in various activities is restricted by financial opportunities, inappropriate communication, etc. Thus, in this respect the factor analysis of the activities that are necessary to elderly people was conducted. The results revealed that 2 factors are dominant: factor number 1 clarifies 31,5 percent, whereas factor number 2 explains 20,8 percent of the whole variation. It can be seen (Table 4) that the first factor combines more components than the second one and basically their elements are distinct. The factor 1 can be defined as *cultural and leisure activity* demand meanwhile the second one can be defined as *religious activity* demand. Although the factor 2 combines less components (only two) but major factor weights of the components unfold.

Table 4. Activities which are necessary to elderly people (results of factor analysis)

Factors	Factor weight	
	1 factor	2 factor
Various meetings with known local/country's people	0,746	0,041
Participation in community meetings	0,728	0,159
Participation in music/dance/handicraft collectives	0,662	0,137
Participation in entertainment events (concerts, theatre, festivals, etc.)	0,658	0,171
Visiting library	0,648	-0,194
Visiting seminars about health	0,603	-0,046
Visiting political events (voting, meeting with politicians)	0,299	0,274
Visiting church	-0,032	0,919
Visiting religious events	0,055	0,916

Research data reveal that religious activity is specifically important to elderly people. It is noticeable that the attendance of political events does not get a sufficient score both in the first factor and the second factor due to the particular reasons. Accordingly it was noticed that political events (or political domain) in many calculations was at the end without specific assessment.

As it has been previously noted, the significance of social domain for wellbeing of elderly people reveals not only through the social relations, social attendance but through various social problems as well. Due to various social problems negative estimation of wellbeing increases. Bearing in mind the previous notes, it must be noted that there are a few questions that are related to social/financial support/help, fears of elderly people, estimation of institutions' activity that are considered. While estimating the subjection of social/financial support/help from separate institutes (family and state) statistically significant results were received concerning average differences.

Table 5. Respondents' opinion about the responsibility of family and state for elderly people

Statement	Just family	Mostly family	Both family and state	Mostly state	Just state
Financial support for elderly people	1,8	1,7	32	41,2	23,3
Assistance for elderly people in housekeeping	19,9	50,0	28,4	1,7	-

Statement	Just family	Mostly family	Both family and state	Mostly state	Just state
Care of elderly (nursing, help while getting dressed, etc.)	11,3	33,7	49,3	4,7	1,0

The data of the research show that almost one third of the respondents indicated that state should mostly concern about financial support of elderly people (64,5 percent), that family and state should care for elderly people. Another opinion is revealed while talking about the assistance at home/housework. In this case, on the contrary, the most significant role falls to family members, relatives (it was indicated by 70 percent of the respondents). Meanwhile, social support (to be precise, social facility) which is necessary for this group has to be important to family and state equally (or more to family, as 45 percent of respondents indicated). It is obvious from the points above that such attitude of elderly people about help for them indicates the distinction among kinds of assistance that is necessary for them. It is clear that family is important while solving individual (personal) help questions meanwhile state is a guarantee of financial resources (firstly ensuring pensions or other social benefits). Although in contemporary society attention is paid to various social facilities that are afforded by state but not all representatives of this age group are able to use the facility due to various reasons (i.e. shortage of information, etc.).

One more problematic issue which is relevant to elderly people is various fears which they face (Fig. 3) or they think about.

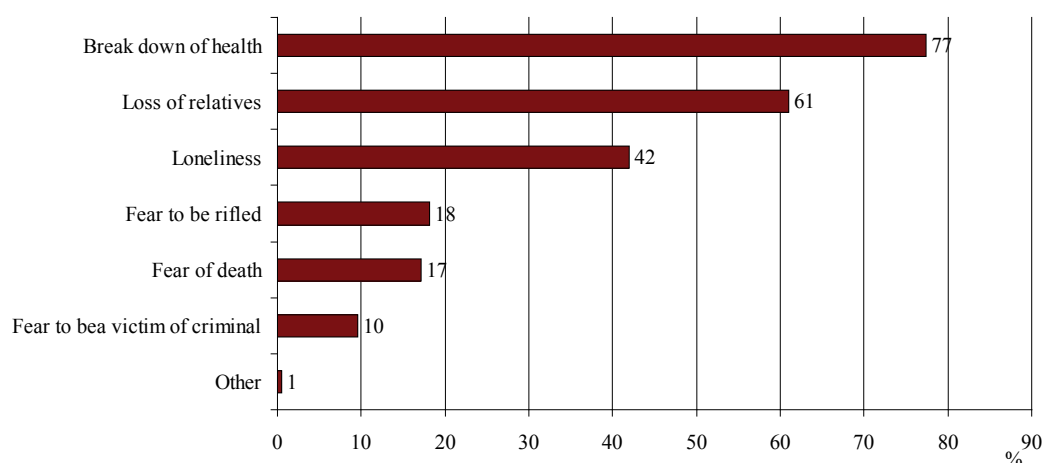


Figure 3. Fears which make elderly people worry, percentage

As given above elderly people mostly indicated that the biggest fear is associated with health deterioration. What is more, it can be seen from the data analysis that the biggest fears are associated with personal life domain. It is clear from the results that the condition of the closest surroundings is an important factor of personal wellbeing and only then all the other fears are relevant. The fears are connected with negative life phenomena such as death and delinquency. However, while estimating the strength of link among various fears very weak bonds were received except average links between the threats of delinquency and fear that they can be robbed.

It must also be noted that suitable implementation of functions of different institutions contribute not only to elderly people's risk factors remission/elimination but to the rise of wellbeing as well. It is emphasised by scientists (Atkinson & Davoudi, 2000; Bjornskov, Fischer & Axel, 2008, etc.) examining the effect of institutions to social groups and their possible prevention. In connection with this last aspect it is significant to mention that the

estimation of the activity of institutions (Table 6) revealed that in the scale of 5 points health institutions are evaluated the worst (it was indicated by 38,5 percent of the respondents) and the activity of government/municipality (26,5 percent) – respectively 2,75 and 2,92 points and the activities of church, shops and post office were evaluated the best. In addition, the correlation analysis of institutions revealed that among the activity of institutions very weak bonds exist and only among health institutions and government/municipality that are evaluated as the worst there are bonds of average strength.

6 Table. Evaluation of institutions activity, percentage

Activity	Very good	Good	Not good, not bad	Bad	Very bad
Health institutions	2,2	15,1	44,2	32,7	5,8
Elderships, municipalities	4,5	14,3	54,7	21,8	4,7
Transport	3,0	31,7	50,2	12,6	2,5
Post	7,5	55,4	33,1	3,0	1,0
Shops	13,1	51,8	32,1	2,7	0,3
Church	22,1	51,0	23,4	2,5	1,0
Entertainment	5,5	21,3	61,4	7,0	4,8

Emphasizing the interrelations of social life domain with subjective wellbeing of elderly people a few results can be distinguished. Firstly, the basis for better evaluation of subjective wellbeing is close social relations in the closest environment. Initial relations with family/relatives, neighbours/friends ensure better integration to society in general. Distant environment is significant as well because it is associated with the satisfaction of various demands. In this case the integration to society while maintaining relations with various institutions is pointed out. As it was noticed before, the communication/social interaction depends not only upon the person but upon activity implementation of the institutions. In this respect various fears and social problems of elderly people, that for separate individuals can be very diverse, emerge. As the research suggests, elderly people are united by similar fears and the particularity of arising problems.

Conclusions

Historically the concept of wellbeing and its application have transformed and at different stages of social development portrayed different characteristics of wellbeing of an individual and/or society. Contemporary wellbeing does not only reflect the objective conditions under which people live and allocate physical resources. Subjective wellbeing including physical health, spiritual condition, feelings, social relations, life priorities is also important. Accordingly subjective wellbeing involves non-physical components of living conditions, means the difference between personal expectations/hopes and actual possibilities to achieve/implement the same, it is a comprehensive perception of wellbeing (e.g. life satisfaction in general) or individual living domains.

The analysis of subjective wellbeing among elderly people showed that their subjective wellbeing is evaluated with average scores; men's wellbeing is worse than women's; better wellbeing is that of 60-69 year-old respondents, but the worst is among 70-79 year-old respondents; women are more happy than men also men are less satisfied with their present life than women; women find the family status particularly important for high well-being, while men opt for material well-being.

The empirical research highlighted that the social domain has an essential impact on the wellbeing of elderly people. Strong relations with the near social environment (family, relatives, friends, neighbours, etc.) affect the process of integration into the society, while weak relations are relative to a gradual rupture with social life. It appeared that the family is important in addressing individual (related to a person) help issues, while the state is rather a guarantee of financial resources (firstly related to the payment of pensions and other social benefits).

The understanding of elderly people about who/what is responsible for their wellbeing depends on how active they are. More active people agreed that they are responsible for their lives themselves or that their immediate family can help them. The more passive ones, who suffer from inadequate living conditions or poverty, believe that they should be taken care of by the neighbourhood or municipality, state or various public, non-governmental or charity organizations.

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SUBJECTIVE WELLBEING OF ELDERLY: SOCIAL DOMAIN ASPECT

Summary

Gintarė Vazonienė,
Aleksandras Stulginskis University, Lithuania

Research on wellbeing provides new information about the human being. Recently the interest in this field increased among academic researchers, policy makers, national statistical offices, the media and the public. Traditional view evaluating objective wellbeing was extended/supplemented by subjective wellbeing approach. It enabled to make a deeper analysis of wellbeing of social groups. This has also become an important research field in Lithuania, though the tradition of subjective wellbeing is growing in momentum.

The changes after the reestablishment of the independence of Lithuania challenged wellbeing differentiation in the society, which determined that some elderly people feel low wellbeing while others live normally. The interest in subjective wellbeing of elderly people in social sciences is quite new and mostly revealed in medicine, somewhat in gerontology, psychology. This view is rather limited and gives opportunities for social sciences to explore it. The growing number of elderly people in society makes challenges for their overall wellbeing. Being aware of what life domains affect their subjective wellbeing it can be easier to improve their lives. Considering wellbeing issues mentioned in the paper the object of this research was – interrelations between social domain and subjective wellbeing of elderly people. The aim of the research was to analyse social domain interrelations with subjective wellbeing of elderly people. The objectives of the research are as follows: to define subjective wellbeing conception and its domains; to analyse social domain elements influencing subjective wellbeing of elderly people; to explore the conclusions of the research.

The definition of subjective wellbeing originated in studies and researches from psychology science. Interdisciplinary interest in subjective wellbeing enforced various scientists who are concerned with the questions related to human entity, individual needs, value expression and other to focus on this field of research. Subjective wellbeing definition is linked with: recognition and individual's emotional experiences that affect his/her life; personal experience of various situations, events when an individual undergoes happy or unhappy empathy and has to make a decision how to behave further; it is a socially determined construct comprising various aspects of real life which influence each social group's/ individual's wellbeing. The analysis of this conception showed that the measurement of subjective wellbeing should be based on separate individuals' life domains: social, economic, political, cultural, environmental, personal. Accordingly the social domain interrelations with elderly people subjective wellbeing were analysed in this article.

Empirical research of subjective wellbeing of elderly people was accomplished using the questionnaire method. The questionnaire was created using the examples of international wellbeing questionnaire researches that are implemented in various countries or within separate countries i.e. national, regional, local level wellbeing researches of countries. Most of the questions were focused on the actualisation of social domain with the aim to reveal the significance of social relations to the integration of elderly people, social problems and their connections with subjective wellbeing. The respondents were elderly people (retiring age people).

Characteristics of social life domain and connections with subjective wellbeing of elderly people revealed that influence of social life domain on wellbeing of elderly people is usually estimated in the context of social relations, social attendance/integration and social problems. The research of subjective wellbeing of elderly people giving attention to social domain aspect revealed miscellaneous results. It has been found out that family status performs an important part in wellbeing estimations of elderly people: married and not married people feel better wellbeing than widowed persons. According to socioeconomic characteristics better wellbeing is for those who live normally or good and worse who believe they are poor. The data about social relations showed that the communication with close environment improves the respondents' wellbeing and elderly people feel necessary, important. This estimation of the feeling of necessity can be associated with elderly people's qualities of activeness/passiveness. Family is important while solving individual care questions meanwhile state is a guarantee of financial resources. Analysing social domain elderly people evaluated how various fears influence their wellbeing: the biggest fears are associated with breakdown of health, loss of relatives, loneliness. Since elderly people contact with different institutions, suitable implementation of functions of different institutions contribute not only to elderly people's risk factors remission/elimination but to the rise of wellbeing as well.

Summarizing it should be noted that the interrelations of social life domain with subjective wellbeing of elderly people have distinguished few results. The basis for better evaluation of subjective wellbeing is close social relations in the closest environment and ensuring of better integration to society in general. External environment is significant as well because it is associated with the satisfaction of various demands. In this case the integration to society while maintaining relations with various institutions is emphasized. Communication/social interaction depends not only upon the person but upon activity implementation of the institutions. As the research highlighted, the strengthening of social domain of elderly people's wellbeing can be a basis for better overall living.

THE EMOTIONAL ADJUSTMENT IN THE PROCESS OF RESTORATIVE ART-THERAPY: THE EXPERIENCE OF INTERDISCIPLINARY RESEARCH

Liudmila D. Lebedeva

*Institute of Positive Technologies and Consulting
Moscow, Russia*

Abstract

Long-term changes in neuropsychological status of the female body (emotional deprivation, depression, neuroses) contribute to the development of cancer. Novelty of the research includes the evidence of influence of art therapy on emotional adjustment of cancer patients, the reliability of laboratory-confirmed levels of oxidative stress and cytokines (regulatory proteins) as a prognostic indicator in the assessment of neuroendocrine cancer patients. Program of Restorative Art Therapy proved efficiency of changes in emotional stability, motivation to recover, improvement life quality of cancer patients.

Keywords: *art therapy, psychosomatics, emotional adjustment, environmental and psychological approach, oncology disease (breast cancer).*

Introduction

Each art session with cancer patients is completed with the creation of an artistic image with positive resource content. Its visualization and verbalization promote self-reflection and taking determined decisions, which is a trigger to improve the overall psychological well-being, and in the long term provide positive dynamics of emotional adjustment. Against the background of the art therapy process we observed a decrease in the number of complaints of the autonomic disorders. The number of women with a harmonic type of emotional response has increased. They have overcome a feeling of hopelessness, reduced situational anxiety over the possible adverse course of the disease and complications. They generally sought to promote a positive outcome of treatment.

The relevance of the topic of the emotional adjustment in the specialists of socio-economical professions is caused by the complex of factors that accompany the professional activity of the type "person-person". Sociocultural changes of the contemporary society alongside with the progress enhance stressogenic factors, which leads to the increased emotionality and tension of the psychical state of a personality. These tendencies are especially stable in the education system. According to the statistical data (Human Development Index, 2008) it has been noticed that among women who have worked for a long time in the education system there is an increase of psychosomatic and oncology diseases, the most widely spread among them is breast cancer. In the treatment of the disseminated forms of this disease the task to maintain the long-term quality of life of women including its most important indicator – psychoemotional status – becomes of prime importance.

The emotional adjustment from the viewpoint of eco-psychological approach presupposes the overcoming of the complex impact of the extreme surroundings, decrease and elimination of the consequences of psychotraumatic experiences, negative attitudes, uncertainty about their abilities, anxiety, fear of the relapse of the disease, etc. (Гнездилов, 2002; Семке, 2003). To date in science it has been convincingly argued that the emotional adjustment leads to the development of emotional stability. This contributes to the achievement of the positive effect of the treatment.

In Russian psychology the holistic concept of the stability of the personality has been suggested by Божович (1966). Modern research in the context of closely related concepts

(vitality, resilience, psychological endurance, resistance, aspects of emotional stability) is conducted at the level of the integration of scientific knowledge (Баева, 2002; Панов, 2001, 2004).

The problems of emotional stability were started to be analyzed in various aspects by Аболин (1987), Василюк (1984), Захаров (1995), Дьяченко & Пономаренко (1990) etc., later they were transferred to psychooncology studies by Гнездилов, (2002), Семке (2003) who revealed the influence of emotional experiences on the pathogenesis of malignant tumours.

The relation between the vegetative (sympathetic) and immune systems with the participation of the endocrine system explains why stress and suboptimal functional states lead to the disorder of the immune system and oncology diseases (Данилова, 1998). The tension of the life environment leads to the increased tension of the psychical state of an individual (Основные подходы и методы психотерапии, 2005). In numerous foreign publications it has been shown that emotional tension in cancer patients remains for many years and is characterized by subjectively experienced anxiety, concern, and nervousness (Clarke, 1995; Spiegel, Bloom, Kraemer, & Gottheil, 1989; Walsh, Martin, & Schmidt, 2004).

Many researchers point out the effectiveness of art-therapy in psychological support of cancer patients (Аллан, 1997; Гудман, Скотт, 2008; Кюблер-Росс, 2001). General regularities of the course of stress reactions (Меерсон, 1981) imply that long-term changes of neuropsychical status of the organism (emotional deprivation; depressions, neuroses, etc.) facilitates the development of the oncology disease, the treatment of which leaves deep trace in a woman's mind for many years.

Relevance of the problem.

Constant memories of the disease they have experienced and a radical surgery cause difficult emotional experiences followed by the feelings of helplessness, rejection, loss of femininity, inferiority, defectiveness, fear of possible social isolation and breaking of the family. According to the interdisciplinary research, only 15% of female cancer patients can independently cope with emotional difficulties, meanwhile, 85% are in need of an effective assistance (Лебедева, 2011). Consequently, alongside with modern forms of medical treatment, complementary psychocorrection of an emotional state of cancer patients by adequate means including art-therapy is necessary. It is the trend that permits to tactfully and ecologically, through artistic creation, facilitate the emotional adjustment of a patient and establish a psychotherapeutic contact with her. Complicated mechanisms of the pathogenesis of breast cancer accentuate a psychoemotional component of this disease.

Complex research on this socially relevant problem has allowed to substantiate the effectiveness of the application of restorative art-therapy. The justification of the results of the emotional adjustment is based on the objective indicators of biochemical processes in the organism through evidence-based practice of art-therapy.

Object of the research. The process of the emotional adjustment of women with the oncology disease in the process of restorative art-therapy.

Aim and objectives

In accordance with the posed problem it is aimed to:

1. Find out the eco-psychological mechanisms of the influence of restorative art therapy on objective indicators – the state of the homeostasis of the organism, emotional stability and life quality of the patients who constantly experience, due to the specifics of their professional activity, emotional influence of the conditions of the “extreme surroundings”.
2. Specify and complement the images of the emotional stability of a personality in the situation of prolonged stress against the background of breast cancer,
3. Justify and approve eco-psychological ways of the optimization of the adaptive mechanisms of a personality that make up a complementary resource in the treatment of this complex disease

Methods of the research

The following methods were applied as a particular clinical-psychological toolkit during

all the periods of the disease (detection of a tumour, establishment of the diagnosis, surgery, post-surgery period):

- *clinical interview* “Sickness Impact Profile” (De Bruin, Diederiks, De Witte, Stevens, & Philipsen, 1994) for the verification of the data and finding out about the personality dispositions of the participants of the research;
- *standardized methods* of measuring the personality identity, the level of aspirations; main personality features (Eysenck, Eysenck, & Barrett, 1985).

Alongside with standardized methods and methodologies the experiment has been conducted where in the experimental group *projective methods*, thematic associative drawings “Self-portrait”, “Story in Pictures”, Self Image (in Present and Future), free drawings, also the author’s methodology “Drawing of Family in the Image of Flowers” were used (Лебедева, 2011; Lebedeva, 2012);

Qualitative and content analysis of the products of the creative activity is conducted in order to reveal the emotional reactions of women and their attitude towards the disease.

Deep dysregulatory, psycho-emotional, immuno-biological, endocrine and metabolic changes in the organism of cancer patients give arguments for the application of anamnestic, clinical psychopathological, clinical psychological and experimental psychological methods.

Sample of the research

The experimental group consists of the workers of education (pedagogues, psychologists, teachers, tutors, lecturers of universities, vocational schools, colleges, managers of educational institutions) in the situation of the oncology disease.

The control group consisted of the specialists of other socio-economic professions also suffering from the oncology disease. They unlike the participants of the experimental group receive standard complex treatment without art-therapy.

The research is conducted on the base of the Regional Clinical Oncology Centre of Ulyanovsk (Russia).

Methodology of the research

Since the experience can be implemented in art images, the objective of art-therapy is the development of skills of the self-management of emotional states, the optimization of an emotional state and emotional background of activity (attraction, empathy, sympathy, compassion, “emotional tension”), enhancement of viability and stress tolerance, changing attitude towards oneself and one’s problem. In case of oncology art-therapy can be attributed to complementary measures that facilitate the activation of internal psychoemotional and creative reserves of a personality.

Form of the applied art-therapy, frequency, peculiarities of the group

The author’s eco-psychological model includes the form of long-term thematic group art-therapy, its duration for every patient is one year with the frequency of 8 sessions a month. Every session lasts from 60 to 90 minutes.

The shift of sessions takes place as follows: there are 16 sessions in two months under the supervision of an art-therapist, then during the following two months the forms of independent work (of the type of “group meetings”) with the participation of volunteers take place. In total up to 48 sessions per calendar year are delivered under the guidance of an art-therapist.

Art-therapy group is heterogeneous according to age, severity of the disease, scope of surgical and specific treatment and includes both primary patients and patients with relapse.

According to a quantitative structure, a group includes 6-10 women with an established diagnosis.

The periods of art-therapy are consistent with the periods of the treatments of the main disease.

Pre-clinical (pre-surgery) period

The first art-therapy session is delivered after the establishment of a diagnosis and the appointment of surgical treatment to a patient in order to render psychological support to a woman in the situation of severe stress and psychoemotional preparation for the upcoming surgery.

Clinical period (treatment in the hospital)

Art-therapy is delivered in the hospital under the guidance of a professional art-therapist (4 sessions a month). On the first and the last session it is desirable to invite the attending breast surgeon who in an accessible form explains the pathogenesis of the disease, the risks, the strategies of medical treatment and psychoemotional rehabilitation and performs the functions of a co-therapist during the session.

Post-clinical period (rehabilitation activities). Systemic sessions under the guidance of an art-therapist alternate with the sessions of the type of “meeting groups” with the participation of volunteers and former patients who are in a state of stable remission and have a high level of life quality.

The atmosphere of emotional warmth, empathy, care and the trust that forms during the sessions allow the participants of the research to adequately perceive individual differences in the course of the disease and help each other.

It is expedient to use the form of internet consultations as individual work, render psychological assistance in the formation of self-regulation and stress tolerance skills.

In the structure of art-therapy sessions the following *stages* have been justified (Лебедева, 2011):

1. Stage of mindset. The use of art techniques meant for reducing control, manifestation of spontaneity, openness, creativity (15 minutes).
2. Stage of emergency art-therapy with the symptoms: pain and nausea against the background of medical treatment. Learning the art techniques of self-assistance. The present stage in the structure of the session is determined by the functional state of the patients (10-15 minutes).
3. Stage of individual artistic activity and other forms of creation (30 minutes).
4. Stage of reflection and feedback (30 minutes).
5. Stage of the transformation of artistic images with the emphasis on the search for a personality resource (15 minutes).

Temporal boundaries are indicated approximately.

The *contents of art-therapy sessions* contain the following topics for the artistic creation:

1. Groups of projective topics focused on the diagnostics and self-perception of emotional states.
2. Group of topics for emergency psychotherapeutic work with the symptoms of the disease and medical treatment (pain, nausea, fear of procedures).
3. Group of topics focused on psychical elaboration and reaction of psychotraumatic emotional states (agitation, anxiety, fear, frustration, resentment, anger, sadness, grief, aggression, feelings of helplessness and danger).
4. Group of topics focused on the correction of “Self image”, optimization of the emotional state, plans and prospects of life.
5. Group of topics focused on the establishment and consolidation of the resource states: “Farewell with the Disease”, the creation of the “Images of Health” and positive “Images of Future” as psychological resources.

The elaborated topics of art-therapy sessions comprise all forms of emotional manifestations:

- 1) emotional reactions that are the responsive experiences to the stimuli they have been caused by;
- 2) emotional states that are characterized by the change of neuropsychological tone;
- 3) emotional relations (feelings) that are characterized by emotional selectivity or the association of particular emotion with particular persons, objects or processes (according to Мясищев, 1960).

It is known that emotional tension and negative emotions are a strong irritant that suppresses the ability to adequately react in an actual situation, reduces self-esteem and leads to the infantilization of a personality (Карвасарски, 2006).

Process of art therapy

Art-therapy sessions in the period of complex treatment of an oncology disease, especially during clinical stage in the hospital, help to keep the patients occupied, weaken the concentration of attention on the manifestations of the disease and shift the focus from negative experiences to the side of aesthetical impressions. Moreover, the patients engaged in creative self-expression free from rational control and critical evaluation can manage their mood (create it) and control how they feel. Their emotional stability increases. Artistic activity not only distracts from pain and unpleasant feelings on the background of treatment procedures but also enhances the resilience of the organism, improves the indicators of the immune system, creates the motivation for the fastest recovery. Already Adrian Hill described the medical fact from his own experience that a creative enthusiasm activates the recovery, creates an expressed stable therapeutic effect (Hill, 1945).

To illustrate this, the detailed characteristics of the way of express-correction of emotional states developed by the author have been presented (Лебедева, 2011).

As it is known, the affects develop under the conditions when a subject cannot cope with the arisen situation. A complicated complex of experiences and images of a cancer patient about her disease, its causes and outcome ("internal image of disease", according to Luria (1987) is the basis on which neurotic reactions, reactive states, pathological scenarios of personality development can occur and develop. Well-timed art-therapy facilitates the optimization of compensatory reactions and emotional adjustment. It is the creative work with visual materials that helps to release the "destructive" negative emotions and feelings. According to the theory of Hill (1940), by encouraging a patient to express his/her experiences in a visual form it is possible to "heal" his/her internal wounds related to introspection. For example, in case of "symbolic destruction of obsessions" they create a picture of an obsessive image and then they destroy the picture (Коран, 2002). There are cases of solving the inner conflict with the help of a metaphoric picture. Thus, in the structure of the methodology of a "dynamic synthetic picture" an internal problem is expressed in the image of a tree with a subsequent destruction or change of the image of a tree in the imagination; it can be a one-time procedure or it can be included into the structure of the course of therapy, there can also be variants with the inclusion of suggestion after the first picture and drawing another picture after it (Панов, 2004). Consequently, a free expression of spontaneous experiences in a non-verbal semiotic field opens new opportunities that complement verbal forms of psychotherapy and psychocorrection.

In art-therapy practice the art technique "Aquatypia" and other various forms of the "play with the paints" are widely applied. The artistic product that is obtained by that is further used for the discussion and feedback with a patient.

The specifics of art-therapy for cancer patients is in the necessity to render the express-correction of an actual state and during one session help a woman to react, weaken or overcome strong negative experiences in a socially accepted way, get an emotional discharge, obtain a subjective experience of rapid self-assistance. The maximum comfortable conditions with a high level of psychological protection are established since emotionally traumatized people require an especially caring and tactical approach.

Another particularity is that every art-session with cancer patients ends with the creation of an artistic image with positive resourceful contents. Its visualization and verbalization facilitate self-reflection and making a conscious solution, which becomes a trigger for the improvement of general psychological wellbeing, and in a long-term perspective ensures the positive dynamics of emotional adjustment.

Analysis of the data of the research

The use of imagination and non-verbal means gives a client an alternative way of self-examination and self-healing. The sessions of drawing or other kinds of creation supported and encouraged by a psychotherapist can fill a patient's life with content and meaning and distract him/her from painful experiences.

According to Rogers (Rogers & Sanford, 1989), this process is a powerful integrating

force. "...Experiences can be constructively channeled into creative sessions ... of art" (Rogers & Sanford, 1989) The analysis of the data of the interview has shown that an inseparable part of the experiences of female cancer patients is fear that is clearly expressed in all periods of the disease: detection of a tumour, establishment of the diagnosis, surgery; fear for future (lifespan, stability of family relations, social demand, etc.). For example, among the patients' statements there are assertions that the disease is the result of the external influence: "evil eye", slander, envy, revenge. Sometimes the patients viewed the causes of the disease as fate, destiny, heredity, "judgment", "punishment", etc. Therefore, an important role in psychocorrection of an emotional state of cancer patients is played by art-therapeutic work with attitudes and personal legends.

Professional activity in the education system enhances the feeling of isolation, because in the pedagogical staff it is not accepted to openly discuss personal topics, all the more so the topic of the oncology disease. According to the data of the research (Test for Self-assessment of the emotional state of Wessman and Ricks (2004) and the Spielberger anxiety test in the adaptation of Ханин (Сборник психологических тестов, 2005), the isolation that occurs among patients is especially evident in personality sphere (up to 80% of women hide the diagnosis).

The results obtained in the process of art therapy that confirm positive dynamics of emotional adjustment of the participants of the project are validated with objective and reliable quantitative data of a biochemical examination.

The results of biochemical samples of 30 breast cancer patients after complex treatment with 1-3 B stages of the disease and of the age of 38-67 years have been presented. The experimental group (10 persons) consisted of women who after the special treatment had the course of restorative art-therapy delivered according to the abovementioned scheme. In the control group (20 persons) standard treatment was carried out.

The obtained data clearly demonstrate a reliable decrease of the level of antioxidant (AO) ferments in blood plasma among the patients in the research group in comparison with the control group, namely: the indicators of MDA (malondialdehyde) have been reduced by 6%, GR (glutathione reductase) by 22%, catalase by 60%. It shows the decrease of free-radical reactions in the organism and allows making a precondition that the risk of the relapse of the disease in the present group of patients remains low (Table 1).

Table 1. Comparison of the experimental and control groups according to biochemical indicators

Biochemical indicators	Experimental group (N=10)	Control group (N=20)
MDA mmol/L	1,93 ± 0,096*	2,049 ± 0,17*
GR mol/L*min	0,011 ± 0,001*	0,014 ± 0,001*
Catalase mmol/L*min	0,049 ± 0,006*	0,12 ± 0,008*

Note: statistical significance of the indicator *p<0,05

It is known that a high level of cortisol and prolactin in blood correlates with psychoemotional tension of the organism, and prolonged stress can provoke the relapse and progressing of breast cancer (Туркевич, 1982).

The results of the present research confirm an evident decrease of the level of cortisol by 2,24 times and the decrease of the level of prolactin in blood serum by 13,46% in the research group in comparison with the control group (Table 2).

Table 2. Comparison of the experimental and control groups according to the indicators of hormones

Indicators of the level of hormones	Experimental group N=10	Control group N=20
Prolactin (mIU/L)	362,95 ± 32,17*	211,78 ± 25,81*
Cortisol (nmol/L)	419,36 ± 45,54*	475,35 ± 43,28*

Note: statistical significance of the indicator *p<0,05

The most evident result is the dynamics of the level of cytokines (IFN – interferon and IL – interleukin) in the process of the treatment of breast cancer.

Cytokines (regulatory proteins) stimulate and inhibit the growth of cells, determine their differentiation and functional activity. One of the main functions of cytokines is the ensuring of the coordinated activity of the immune, endocrine and nervous systems as a response to stress. The increased production of cytokines lies on the basis of many diseases. There is an evidentiary presumption that cytokine dysregulation is on the basis of tumour growth.

According to the results of the measurements of the levels of cytokines in the blood serum of cancer patients in the present project, it has been found that the level of IFN-γ in the experimental group is lower in comparison with the control group (Table 3).

Table 3. Comparison of the experimental and control groups according to the indicators of cytokines

Indicators of cytokines, proteins that coordinate immune reactions	Experimental group N=10	Control group N=20
IFN-γ (interferon)	52,33 ± 1,27*	62,39 ± 2,27*
IL-1β (interleukin)	23,92 ± 1,30*	8,92 ± 0,23*

Note: statistical significance of the indicator *p<0,05

Conclusions

Swift incidence rate of breast cancer among Russian women actualizes the problem of innovative research methods of not only special but eco-psychological restorative treatment with the purpose of assessment and improvement of quality of life and its optimization and longevity. Comprehensive analysis of socially meaningful yet little-studied problem permitted to work out the model of emotional adaptation for cancer patients in the process of restorative art-therapy. A successful model for a long-term group based restorative art therapy has been developed. The program can be incorporated in the process of overall clinical therapy for patients with breast cancer during all phases of therapy, i.e. pre-clinical, clinical, and post-clinical and during the period of rehabilitation. The structure and content of art therapy session must be customized individually for specific oncology related condition or disease.

In the structure of art therapy sessions justified 5 stages, including the stage of emergency psychotherapeutic work with emotional states and the symptoms that accompany the patients after surgery, during chemotherapy, radiation therapy and other forms of medical treatment.

In general, it is proved that the artistic activity in the process of art therapy is not only a distraction from the pain and emotions caused by the diagnosis, but also enhances the emotional stability, creates motivation to recovery. In 30 women of the study group according to biochemical blood test recorded decline of free radical reactions in the body, improved the immune, endocrine and nervous systems.

So, timely conducted art therapy helps optimize compensatory reactions and emotional adjustment of cancer patients, has a positive effect on the quality of life of patients and improves the overall outlook for their recovery.

In the process of the research, development and testing of this study, as well as patented conservative surgical involvement with consideration of minimal damage for breast cancer

patient, has resulted in emotional adaptation and physical rehabilitation with steady positive dynamics.

Studied the clinical and epidemiological aspects of breast cancer as an example the prevalence of the disease in the Ulyanovsk region.

In the long term, the theoretical results can promote developing of psycho-oncology, general and overall health psychology, eco-psychology, and worked out art-therapy programmers will be in high demand in the applications of practical activity of specialists in the conditions of oncology clinics and centers.

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THE EMOTIONAL ADJUSTMENT IN THE PROCESS OF RESTORATIVE ART-THERAPY: THE EXPERIENCE OF INTERDISCIPLINARY RESEARCH

Summary

Liudmila D. Lebedeva

Institute of Positive Technologies and Consulting, Moscow, Russia

Swift incidence rate of breast cancer among Russian women actualizes the problem of innovative research methods of not only special but eco-psychological restorative treatment with the purpose of assessment and improvement of quality of life and its optimization and longevity. Comprehensive analysis of socially meaningful yet little-studied problem permitted to work out the model of emotional adaptation for cancer patients in the process of restorative art-therapy. Scientific novelty of the material includes the evidence of influence of art therapy on emotional adjustment of cancer patients. The reliability of laboratory-confirmed levels of oxidative stress and cytokines (regulatory proteins) as a prognostic indicator in the assessment of neuroendocrine cancer patients. Each art session with cancer patients is completed with the creation of an artistic image with positive resource content. Its visualisation and verbalisation promote self-reflection and taking determined decisions, which is a trigger to improve the overall psychological well-being, and in the long term provide positive dynamics of emotional adjustment. **Object of the research.** The process of the emotional adjustment of women with the oncology disease in the process of restorative art-therapy. **Aim and objectives.** In accordance with the posed problem it is aimed to: 1. Find out the eco-psychological mechanisms of the influence of restorative art therapy on objective indicators – the state of the homeostasis of the organism, emotional stability and life quality of the patients who constantly experience, due to the specifics of their professional activity, emotional influence of the conditions of the “extreme surroundings”. 2. Specify and complement the images of the emotional stability of a personality in the situation of prolonged stress on the background of breast cancer; 3. Justify and approve eco-psychological ways of the optimization of the adaptive mechanisms of a personality that make up a complementary resource in the treatment of this complex disease. **Methods of the research.** *Clinical interview* with women; “Sickness Impact Profile” for the verification of the data and finding out about the personality dispositions of the participants of the research; *standardized methods* of measuring the personality identity, the level of aspirations; main personality features (according to Eysenck, Eysenck, & Barrett, 1985); wide spectrum of personality traits. Alongside with standardized methods and methodologies the experiment has been conducted where in the experimental group *projective methods*, thematic associative drawings “Self-portrait”, “Story in Pictures”, Self Image (in Present and Future), free drawings, also the author’s methodology “Drawing of Family in the Image of Flowers” were used (Лебедева, 2011);

A successful model for a long-term group based restorative art therapy has been developed. The program can be incorporated in the process of overall clinical therapy for patients with breast cancer during all phases of therapy, i.e. pre-clinical, clinical, and post-clinical and during the period of rehabilitation. The structure and content of art therapy session must be customized individually for specific oncology related condition or disease.

In the structure of art therapy sessions justified 5 stages, including the stage of emergency psychotherapeutic work with emotional states and the symptoms that accompany the patients after surgery, during chemotherapy, radiation therapy and other forms of medical treatment.

It is proved that the artistic activity in the process of art therapy is not only a distraction from the pain and emotions caused by the diagnosis, but also enhances the emotional stability, creates motivation to recovery. In 30 women of the study group according to biochemical blood test recorded decline of free radical reactions in the body, improved the immune, endocrine and nervous systems.

So, timely conducted art therapy helps optimize compensatory reactions and emotional adjustment of cancer patients, has a positive effect on the quality of life of patients and improves the overall outlook for their recovery.

In the process of the research, development and testing of this study, as well as patented conservative surgical involvement with consideration of minimal damage for breast cancer patient, has resulted in emotional adaptation and physical rehabilitation with steady positive dynamics. Studied the clinical and epidemiological aspects of breast cancer as an example the prevalence of the disease in the Ulyanovsk region.

ABOUT THE AUTHORS

Daiva Alifanovienė

Academic degree, title and affiliation	PhD (Social Sciences, Education), Associate professor of the Department of Social Education and Psychology of the Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Social Education. Social Pedagogy; Social Work Methods.
E-mail address	d.alifanoviene@gmail.com

Danielle Blackwood

Academic degree, title and affiliation	B.S. Elementary Education, Louisiana State University, Masters of Natural Science, Louisiana State University Instructor, LSU Laboratory School
Area of research interests	-
E-mail address	dblack@lsu.edu .

Ilona Dobrovolskytė

Academic degree, title and affiliation	Master degree of Applied Physical Activity (Social Science, Educology), Assistant of Health Science Department, Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Development progress of infants with motor delays by using corrective education and vocational rehabilitation
E-mail address	i.dobrovolskyte@gmail.com

Michael H. Epstein

Academic degree, title and affiliation	Ed.D. (Special Education) Professor, University of Nebraska-Lincoln
Area of research interests	Identification of children with emotional disturbances, school and community-based services, strength based assessment, evaluation of education and mental health services, and home-school collaboration
E-mail address	mepstein1@unl.edu

Giedrė Gabnytė

Academic degree, title and affiliation	Doctor of social sciences, associated professor of music pedagogy department at Lithuanian academy of music and theater
Area of research interests	Music education, instrument playing
E-mail address	ggabnyte@yahoo.com

Michelle Gatmaitan

Academic degree, title and affiliation	Master of Education, Project Coordinator for Early Intervention training grant, Kent State University
Area of research interests	Personnel preparation and professional development in Early Intervention, coaching, family-centered practices
E-mail address	mgatmait@kent.edu .

Sanna Harjusola-Webb

Academic degree, title and affiliation	Ph.D. in Special Education, Associate Professor, Kent State University
Area of research interests	Early childhood intervention and special education personnel preparation and professional development, evidence-based practices to promote communication and language development of young children, and implementation science.
E-mail address	shwebb@kent.edu ,

Jacqueline N. Huscroft-D'Angelo

Academic degree, title and affiliation	Ph.D. (Educational Studies, Special Education) Research Associate, Texas Christian University, Alice Neely Special Education Research and Service (ANSERS) Institute
Area of research interests	Emotional behavioral disorders, child and adolescent mental health, and aftercare for youth in residential settings
E-mail address	j.n.dangelo@tcu.edu

Adolfas Juodraitis

Academic degree, title and affiliation	PhD (Social Science, Psychology), Professor of the Department of Social Education and Psychology of the Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Peculiarities of development of personality in the changing society; psychology of deviant behaviour
E-mail address	sppkatedra@cr.su.lt mailto:d.alifanoviene@gmail.com

Oleg M. Kokun

Academic degree, title and affiliation	Dr. of Science (Psychology), Professor, Deputy Director of the G.S. Kostiuk Institute of psychology, Kyiv, Ukraine
Area of research interests	Psychology of labour, psychology of activity, social psychology, psychophysiology.
E-mail address	kokun@voliacable.com

Ashley N. Lyons

Academic degree, title and affiliation	M.Ed. Early Childhood Intervention; Doctoral candidate for Early Childhood Intervention, Kent State University
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Area of research interests	The use of video technologies to support language development and social communication in children with autism; tiered models of instruction; family and practitioner empowerment and advocacy; assessment in EI/ECSE; twice exceptional young children; implementation science; professional development models and coaching; and the relationship of the confidence and competence of families, EI providers, and leadership.
E-mail address	anlyons@kent.edu

Liudmila D. Lebedeva

Academic degree, title and affiliation	PhD in Pedagogical Sciences, professor, vice-rector for scientific research and international collaboration, Institute of Positive Technologies and Consulting, Moscow, Russia
Area of research interests	Art therapy, behaviour management applying art therapy
E-mail address	l.d.lebedeva@list.ru

Kevin S. McCarter

Academic degree, title and affiliation	Ph.D., Associate Professor, Department of Experimental Statistics, Louisiana State University
Area of research interests	Applications of generalized linear , mixed modelling
E-mail address	mccarter@lsu.edu

Lina Miliūnienė

Academic degree, title and affiliation	Master degree of Social Science, Lecturer of the Department of Health Science, Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Non-formal health education, management of the health risk factors and self-control in education
E-mail address	m.lina@spf.su.lt

Daiva Mockevičienė

Academic degree, title and affiliation	PhD (Social Science, Educology) Asocc. Prof., the Head of the Department of Health Science, Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Rehabilitation and applied physical activities of adolescents; Development progress of infants with motor delays by using corrective education; vocational rehabilitation
E-mail address	daiva.mockeviciene@su.lt

Paul Mooney

Academic degree, title and affiliation	Ph.D., Associate Professor, Special Education Programs, Louisiana State University
Area of research interests	Formative assessment, academic intervention for struggling learners
E-mail address	pmooney@lsu.edu ;

Žydra Musvicienė

Academic degree, title and affiliation	Mgs. of Social Science (Social Sciences, Education) Šiauliai University
Area of research interests	Social education in educational institutions
E-mail address	sppkatedra@cr.su.lt

Robert J. Russo

Academic degree, title and affiliation	BFA Graphic Design, Moodle Development Project Manager, Louisiana State University
Area of research interests	Learning management systems Pedagogy, Computer Human Interaction
E-mail address	rrusso@lsu.edu ;

Liudmyla Serdiuk

Academic degree, title and affiliation	Doctor of Psychological Science, Associate Professor; Open International University of Human Development “Ukraine”, Kyiv, Ukraine
Area of research interests	Processes of human self-realization and motivation
E-mail address	lzserdyuk@rambler.ru

Diana Strakšienė

Academic degree, title and affiliation	Prof., Dr. at Šiauliai University, Faculty of Arts. Head of the Department of Music Education; Senior Research Worker at Art Research Centre.
Area of research interests	Music education, teacher education
E-mail address	diana.straksiene@gmail.com

Odeta Šapelytė

Academic degree, title and affiliation	Mgs. of Social Science (Social Work), Lecturer of the Department of Social Education and Psychology of the Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Empowering social pedagogical support, empowering strategies, resocialization of juveniles
E-mail address	odeta.sapelyte@su.lt

Laima Tomėnienė

Name, surname	
Academic degree, title and affiliation	PhD student, Lecturer of the Department of Special Education of the Faculty of Social Welfare and Disability Studies, Šiauliai University, Lithuania Special educator-expert of the comprehensive school
Area of research interests	Education of pupils with special educational needs, development of mathematical literacy of pupils with special educational needs
E-mail address	laima.tomeniene@gmail.com

Ronald Thompson

Name, surname	
Academic degree, title and affiliation	Ph.D. Director, Boys Town National Research Institute for Child and Family Studies
Area of research interests	Well-being of youth and families in residential care, education and mental health services
E-mail address	Ronald.thompson@boystown.org

Alexandra L. Trout

Name, surname	
Academic degree, title and affiliation	Ph.D. (Educational Studies, Special Education) Associate Research Professor, University of Nebraska-Lincoln
Area of research interests	Transitions and aftercare for youth with or at-risk of disabilities in out-of-home care.
E-mail address	alex.trout@unl.edu

Asta Vaitkevičienė

Name, surname	
Academic degree, title and affiliation	PhD (Social Sciences, Education), Associate professor of the Department of Social Education and Psychology of the Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Art Psychology; Art Therapy; History of Provision of Social Support.
E-mail address	menas885@gmail.com

Gintarė Vaznonienė

Name, surname	
Academic degree, title and affiliation	PhD, lecturer Institute of Business and Rural Development Management, Faculty of Economics and Management, Aleksandras Stulginskis University
Area of research interests	Wellbeing, subjective wellbeing, quality of life, social groups needs analysis
E-mail address	gintarej@gmail.com

Renata Žukauskaitė

Name, surname	
Academic degree, title and affiliation	Master degree of Applied Physical Activity (Social Science, Educology), Assistant of the Department of Health Science, Faculty of Social Welfare and Disability Studies, Šiauliai University
Area of research interests	Assessment of person's physical abilities.
E-mail address	zukauskaite.r@gmail.com

Information and Requirements for publications in Journal “SOCIAL WELFARE *INTERDISCIPLINARY APPROACH*”

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- socialwelfare@su.lt
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Contacts:

Address in Lithuania:
Šiauliai University
Faculty of Social Welfare and Disability Studies
P. Višinskio 25, Šiauliai, LT– 76351 Lithuania

Contact person:

Šapelytė Odeta
E-mail address: socialwelfare@su.lt
Website: <http://www.socialwelfare.su.lt/>
Tel: +370 41 595754

Address in Ukraine:
Open International University of Human
Development „Ukraine
Social Technologies Institute
23 Lvivska str., of 110, Kyiv, 03115
Ukraine

Contact person: Kozlikovska Nadiia
E-mail address: socialwelfareUA@gmail.com
Website: <http://en.vmurol.com.ua/>
Tel: +38 067 4475188

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E-mail info@bmkleidykla.lt, Phone (+370 5) 254 6961, Fax (+370 5) 254 6962.
Internet www.bmkleidykla.lt