

**EPIDEMIOLOGICAL ANALYSIS
OF SELECTED MEDICAL
AND SOCIAL PROBLEMS CONNECTED
WITH NON-INFECTIOUS DISEASES
IN POLAND**

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COPING STRATEGIES OF PEOPLE WITH DISABILITY AS AN INDICATOR OF THEIR SUCCESS IN TELEWORKING

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Key words: *disabled persons, teleworking*

Introduction

Vocational activity of man is one of the conditions for gaining independence and self-reliance. Disabled persons cannot be excluded from this rule; on the contrary, this seems especially crucial for them in the context of normalization of their life [2, 5, 7].

- Teleworking – work on distance with use of modern information processing technologies – as one of the forms of employment available currently on the European work market becomes more and more popular also in our country [1, 8]. The interest in this form of organizing and carrying out work is particularly noticeable in the group of people with disabilities, who very severely experience unemployment and perceive teleworking as an idea for, at least partial, solution of their employment difficulties [3].

In response to this interest the Polish Government's Deputy for Disabled People Affairs together with PFRON provided financial support for conducting the piloting project *Teleworking – supporting employment of disabled people*. One of the executors of the project was Foundation *Fuga Mundi* from Lublin. Apart from providing trainings for the disabled and searching for workplaces for them, this foundation introduced additional module to the abovementioned project, concerning psychosocial determinants of the effectiveness of employment and functioning in the teleworking system for the disabled. The task of developing the conception of the research was undertaken by a team of researchers from higher schools in Lublin and the direct executors was the group of students participating in the seminar in rehabilitation psychology in Institute

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of Psychology, Catholic University of Lublin, under the supervision of W. Otrębski. This paper presents partial results of this research.

Organization and carrying out work in the teleworking system requires specific psychosocial predispositions on the part of the employee. According to Nilles (2003), the ideal teleworker working at home is the person with strong internal motivation and self-discipline, possessing all skills necessary for carrying out the work, whose home is adapted to teleworking and who shows enthusiasm to such possibility. Probably not all people will fall into this category but they should possess some key characteristics that ought to be taken into account while selecting the person for distance work. These are the following characteristics:

- the first of them is auto-motivation. Teleworkers who work at home do not receive visual and auditory signals occurring at traditional office which motivate for work; moreover, their attention can be additionally distracted by factors with which they would not have to deal at office. Therefore, the more internal motivation they have to perform their work, the more easily they will adapt to teleworking. In some workers such motivation is overt; in others it may be covert and can only become clearly evident when appropriate opportunities are created,
- the second of them is self-discipline which is of similar significance. Even if the worker has strong motivation, everything can misfire if he/she lacks self-discipline. The home as work environment does not favour constant monitoring; therefore it is much better when the workers do not need it,
- the third of them is professional skills and experience. Switching to teleworking at home proves easiest for the worker who has already gained experience and relevant skills necessary for carrying out given work. In some cases such skills can be developed through additional training but this should be precisely fixed before starting teleworking,
- the fourth of them is flexibility and innovation. Teleworking is a new form of work. Those employees who have difficulty with adapting to new situations can also encounter problems in teleworking environment. Workers with innovative attitudes and flexibility will be less likely to reveal such difficulties or these difficulties will not be serious,
- the fifth of them is sociability. Teleworking at home, and to a lesser extent in satellite and local centres, limits the number and range of direct social contacts connected with a given job post. In a sense they can be replaced or their number even significantly increased by electronic forms of communication but in any case this situation is evidently different from the one at traditional office environment. The issue of introversion and extraversion should also be taken into account. Very extravert persons are less likely to be successful at teleworking at home,
- the sixth of them is the stage of life. Apart from character traits, the fact should be taken into consideration that many successful teleworkers are at this life stage which particularly favours work. As a counterexample the

situation of young, lonely persons can be provided, who count on frequent contacts with their peers in order to set social relationships, they want to stay at workplace, near coffee-machines or in corridors. At other life stages the same employees can enjoy working at home, where during breaks they can devote time to their children, retired spouse, ill parents or friends from neighbourhood,

- the seventh of them is internal compulsions. Some teleworkers at home give up to some internal compulsions which they could resist when they worked at office. In an isolated home environment they indulge into them. These compulsions include: excessive eating, taking drugs and workoholism. Most people at home possess pressures counteracting these compulsions or can activate self-discipline to fight them. However, some teleworkers can give up to them. Similarly to issues connected with family, during the selection process candidates for teleworking should be warned against such hazards rather than directly questioned about their addictions,
- the eighth of them is physical environment for teleworking at home. Although it is not strictly a socio-psychological issue, it is essential to require establishing a place at the teleworker's home that would be suitable for the office during working hours. It would be best, although it is not unconditionally necessary, if this place was stable and did not require everyday fixing and disassembling of the equipment. If the place that could be separated for time of work is not found, the likelihood of successful work over a long period is very low.

For disabled people employed in this form, the teleworking system appears on the one hand as a blessing – avoiding transportation problems in reaching the workplace, unlimited work time; on the other hand, however, it can pose the danger of deepening social isolation and associated psychological problems. Therefore, we decided that it is extremely important to examine personality profile and strategies of coping with the psychological burden of work in participants of trainings and potential teleworkers. This will allow answering the question: to what extent personality characteristics and coping strategies with psychological burden in work situation influence success in distance work? The obtained results were analysed with respect to the differences in gender, type and level of disability.

Method

Participants

The subjects were 40 participants of the trainings who fulfilled criteria for the teleworking project: the level of disability (severe 40%, moderate 60%), level of education – at least secondary education 70%, higher vocational education 4.5%, graduates 25.5%, being at the age of vocational activity – up to 55 years ($M=47$); registered in an employment agency.

41.3% of subjects were men and 58.70% were women. Analysing the time when the disability occurred we established that in 56.50% it was congenital and in 43.50% it was acquired.

Instrumentation

As the main method in research the questionnaire *AVEM* by T. Rongińska and W. A. Gaida was utilised, as a supplementary method – *Individual Information Sheet* of our own construction was implemented to gather data about the investigated subjects.

The questionnaire *AVEM* was designed to describe strategies of coping with psychological burden in situation of work. In other words, it measures the patterns of behaviour used by the employee in the work environment as ways of coping with work problems. It allows estimating personal resources of the individual in the context of coping with work demands [6].

It consists of 66 items to which the subjects response on 5-point scale according to the adequacy between the content of the item and their own feelings and experiences. The items are categorized into 11 subscales (6 items each). The names of the subscales are as follows:

1. Subjective meaning of work (BA),	6. Resignation tendencies in face of failure (RT),
2. Vocational ambition (BE),	7. Active problem solving (OB),
3. Readiness to expend energy (VB),	8. Internal harmony (IR),
4. Striving for perfection (PS),	9. Sense of professional success (EE),
5. Distancing ability (DF),	10. Satisfaction with life (LZ),
	11. Sense of social support (SU).

These subscales are related to three personality spheres determining the effectiveness of the individual's work:

- commitment to work,
- psychic resilience and strategies of coping with problem situations,
- emotional attitude towards work.

The questionnaire can be administered individually or in group with use of a pencil-and-paper or computer version. Additionally, the computer software is available that allows transforming raw scores into a normalized scale as well as conducting a range of other statistical analyses which finally result in providing an individual profile for 11 questionnaire subscales and classifying the subject, on the basis of the obtained results, into one of the four behaviour types:

- Type G – healthy type,
- Type S – economical type.

Risk types:

- Type A – overloaded type,
- Type B – burnt out type.

Another applied method was *Individual Information Sheet* of our own construction which enabled gathering relevant data concerning the subjects in a systematic way to provide variables that can be used in further statistical analyses. The data collected by means of this instrument comprised information about the investigated subject, family situation, economic status and workplace. This paper only makes use of a part of the obtained data.

Data analysis

Data were analysed statistically using SPSS package. Mean scores and standard deviations were calculated for each of 11 subscales and *t*-tests for independent samples were applied to test differences in subscales between the subjects grouped according to gender, level and type of disability. The information regarding coping strategy for the whole sample and each subgroup was obtained directly from AVEM computer software.

Results

Personal profile of the examined samples

The analysis of the mean scores of 11 subscales of AVEM calculated for all subjects together allows us to claim that work is of great value for them (BA). This is evident in relatively high vocational ambitions (BE) and excessive striving for perfection (PS). These persons can efficiently distance themselves from work matters (DF) and generally experience sense of internal harmony (IR). To solve their problems they usually apply active strategies, however, experienced failures can impede their active attitude towards challenges (OB). They are aware of receiving support from their surroundings (SU). However, in spite of the support and considerable commitment to work, they do not have high satisfaction with their professional achievements (EE) (Table I).

Table I. Mean scores (M) and standard deviation (SD) for 11 AVEM scales - whole sample and the gender subgroups

AVEM Scales	Total		Women		Male	
	M	SD	M	SD	M	SD
Subjective meaning of work (BA)	6.02	1.73	5.79	2.10	6.24	1.34
Vocational ambition (BE)	6.65	2.21	6.68	2.67	6.62	1.77
Readiness to expend energy (VB)	5.90	2.22	6.10	2.60	5.71	1.85
Striving for perfection (PS)	6.85	2.01	6.89	2.05	6.81	2.01
Distancing ability (DF)	6.10	2.01	6.10	2.28	6.09	1.79
Resignation tendency in face of failure (RT)	4.87	2.31	4.58	2.83	5.14	1.74

AVEM Scales	Total		Women		Male	
	M	SD	M	SD	M	SD
Offensive problem solving (OB)	6.85	1.91	6.53	2.24	7.14	1.56
Internal balance and harmony (IR)	6.40	2.17	6.58	2.41	6.24	1.97
Sense of professional success (EE)	4.90	2.56	5.26	3.00	4.57	2.11
Satisfaction with life (LZ)	5.32	2.33	5.68	2.79	5.00	1.84
Sense of social support (SU)	6.82	1.75	7.16	2.21	6.52	1.17

AVEM profiles (11 subscales) of men and women are very similar to the general profile obtained for the whole group of the disabled. What attracts attention is that much higher awareness of support from the closest environment and sense of social security is characteristic for the disabled women. It is a likely reason for the finding that women, when compared to men, obtained higher scores in the subscales Satisfaction with life (LZ), Internal harmony (IR) and Sense of professional success (EE). The disabled women show less tendency to resign in situations of failure (RT) but it is the investigated men who would rather use active strategies of coping with problems (OB). Perhaps, smaller sense of social support in men limits active attitude towards problems (OB) and favours the tendency for resignation (RT).

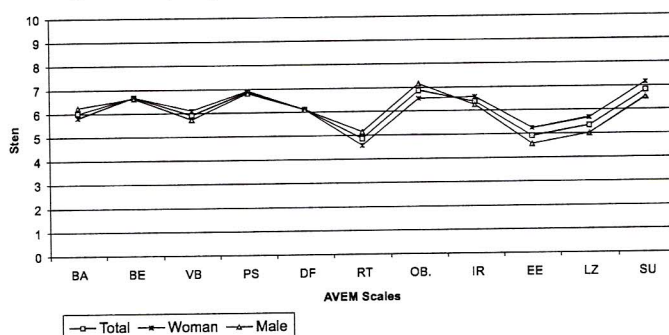


Figure 1. Mean scores for 11 AVEM scales – whole sample and the gender subgroups.

Work is an essential element of life (BA) for persons with both congenital and acquired disability; however persons with congenital disability show less professional ambition (BE). Subjects from both subgroups can effectively separate personal from work matters (DF). Persons with acquired disability in problem situations show greater tendency to use active strategies and reveal smaller sense of resignation after experiencing a failure. Probably it is these characteristics of functioning that give them greater sense of professional success (EE), even in spite of social support (SU) smaller than in persons with congenital disability. This

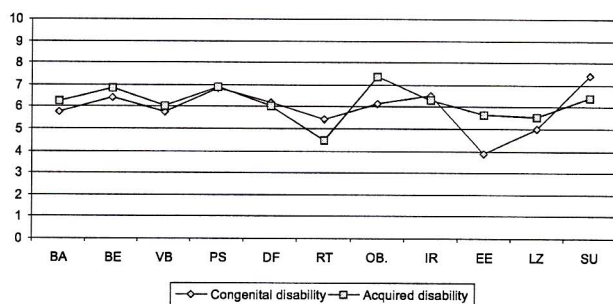


Figure 2. Mean scores for 11 AVEM scales – whole sample and the type of disability subgroups.

characteristic is statistically significant in differentiating the discussed subgroups. They are similar in revealing relatively high internal harmony (IR) and moderate satisfaction with life (LZ).

Table II. Mean scores (M) and standard deviation (SD) for 11 AVEM scales - the type of disability subgroups

AVEM Scales	Congenital Disability		Acquired disability	
	M	SD	M	SD
Subjective meaning of work (BA)	5.76	1.89	6.22	1.62
Vocational ambition (BE)	6.41	2.76	6.83	1.75
Readiness to expend energy (VB)	5.76	2.41	6.00	2.11
Striving for perfection (PS)	6.82	2.16	6.87	1.94
Distancing ability (DF)	6.18	2.32	6.04	1.79
Resignation tendency in face of failure (RT)	5.41	2.76	4.48	1.88
Offensive problem solving (OB)	6.12	2.34	7.39	1.34
Internal balance and harmony (IR)	6.53	2.29	6.30	2.12
Sense of professional success (EE)	3.88	2.73	5.65*	2.19
Satisfaction with life (LZ)	5.00	2.71	5.56	2.04
Sense of social support (SU)	7.41	2.03	6.39	1.40

* $p < 0.05$

AVEM profiles of persons with moderate and severe level of disability generally overlap the profile obtained for the whole group of the subjects. It can be only noticed that in persons with moderate level of disability higher vocational

ambitions are visible associated mainly with professional training (BE), tendency to use active strategies of solving problem (OB) as well as slightly lower tendency to resign in situations of failure (RT).

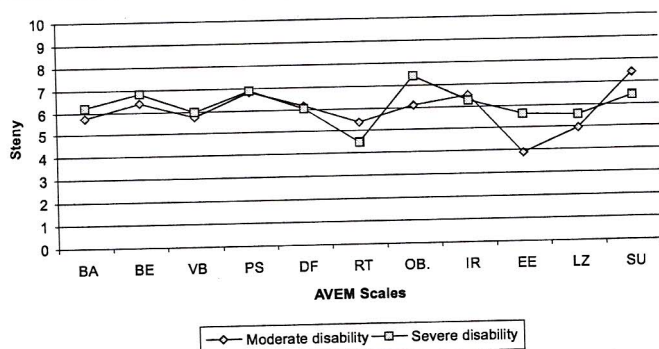


Figure 3. Mean scores for 11 AVEM scales – whole sample and the level of disability subgroups.

Table III. Mean scores (M) and standard deviation (SD) for 11 AVEM scales - the level of disability subgroups

AVEM Scales	Moderate disability		Severe disability	
	M	SD	M	SD
Subjective meaning of work (BA)	6.08	1.81	5.80	1.61
Vocational ambition (BE)	7.21	2.02	5.93	2.31
Readiness to expend energy (VB)	5.71	2.40	6.07	1.94
Striving for perfection (PS)	6.83	2.14	7.00	1.85
Distancing ability (DF)	6.17	2.10	6.13	1.92
Resignation tendency in face of failure (RT)	4.62	2.35	5.27	2.34
Offensive problem solving (OB)	7.08	1.91	6.53	1.99
Internal balance and harmony (IR)	6.54	2.22	6.47	1.88
Sense of professional success (EE)	4.62	2.62	5.20	2.54
Satisfaction with life (LZ)	5.54	2.32	5.07	2.46
Sense of social support (SU)	6.79	1.79	7.00	1.73

Coping strategies of the investigated samples

In the general population of people active occupationally, majority do not reveal any unified pattern of behaviour or experience that could be classified into one of the types identified in AVEM [6]. Therefore, it is not striking that 75% of the disabled

persons we investigated also showed undetermined strategies of coping with psychological burden in work situation. In the group of persons who do possess determined strategies of coping with psychological burden, all types of behaviour distinguished in *AVEM* were found to occur, and the highest rate was for Type G, that is the healthy type (13%). Persons classified into this group enjoy satisfactory well-being and possess abilities necessary for personal development, including professional development. Persons with this pattern of behaviour set themselves ambitious goals and at the same time they can realistically estimate their chances in the context of the task they undertake. They are characterized by a relatively high level of internal harmony. The smaller percentage of the subjects fell into Type S – the economical type (5%). Those persons do not expect continuous confirmation of professional successes and the sources for general satisfaction with life can be found in situations unrelated to work. They maintain distance to their work but their economical behaviours do not have resignation as a basis. The smallest rates among determined strategies were for risk types: Type A – excessively loaded (3%) and Type B – burnt out (5%) (Fig. 4).

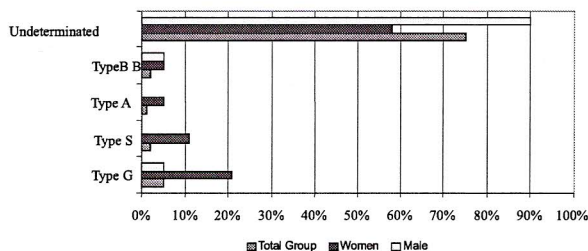


Figure 4. Types of coping strategies – whole sample and gender subgroups.

More women (42%) than men (10%) possess determined strategies of coping with psychological burden. The majority of women were classified into Type G – healthy (21%) and, in order, to types S – economical (11%), A and B – risk types (each 5%). In the case of men, persons classified to type G – healthy and B – burnt out, constitute groups of the same number (5%).

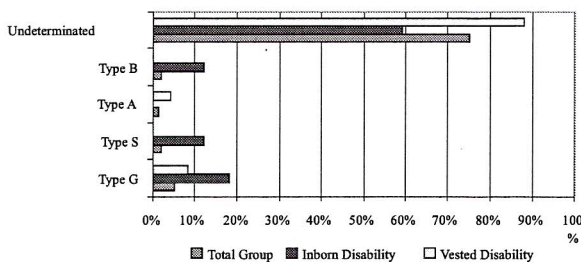


Figure 5. Types of coping strategies – whole sample and the type of disability subgroups.

More persons with congenital disability (49%) than with acquired disability (12%) were classified to a determined type of behaviours connected with work. Among persons with congenital disability there were persons belonging to types: G (18%), S (12%) and B (12%). Persons overloaded with work, excessively perfective and showing the tendency to resign in face of failure (Type A) were found only in the group of subjects with acquired disability (4%). Apart from the risk type – Type A, in the case of persons with acquired disability some persons were also classified into Type G (8%) (Fig. 5).

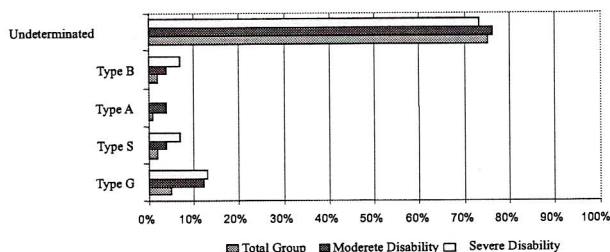


Figure 6. Types of coping strategies – whole sample and the level of disability subgroups.

Among persons classified into specific *AVEM* types, more subjects with severe level of disability (in comparison to subjects with moderate level of disability) showed the pattern of behaviour of Type G (13%). In both groups there were persons using strategies belonging to types: S – economical (respectively 7% and 4%) and B (risk type) burnt out (respectively 7% and 4%). Persons overloaded with work, lacking the capability of distancing from difficulties and feeling lack of social support (Type A) were found only in the group of subjects with moderate level of disability (4%) (Fig. 6).

Outcomes

- Among those who have determined strategies of coping with the psychological burden in work situation the highest rate was received for healthy type - Type G (approximately 13% of the whole sample and those with severe level of disability, 18% of the subjects with congenital disability, 21% of the women who participated in the survey). We can expect that all those individuals will find themselves well in teleworking system.
- Very low percentage of the investigated sample applied coping strategies that belongs to the risky types (A or B).
- Based on the findings, in general we can say that part of the sample that participated in the training program would succeeds in teleworking. Among the trainees we also found an individuals for whom this way of working wouldn't work out well. Therefore, anyone who would organise the training

for the next groups has to put more attention in to the psychosocial predisposition of the candidates.

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