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## Rola pomocy społecznej w procesie rehabilitacji kardiologicznej

## The role of social support in the process of cardiologic rehabilitation

### Streszczenie

**Wstęp.** Problematyka wsparcia społecznego od wielu lat mieści się w nurcie badań nad wpływem zmiennych psychospołecznych na stan zdrowia i funkcjonowanie w chorobie. Wsparcie społeczne jest jedną ze zmiennych zabezpieczających przed negatywnymi skutkami stresu, a sytuacja choroby niewątpliwie jest stresująca lub zmniejszającymi jego negatywne działanie.

**Cel.** Celem badań było określenie zależności pomiędzy doświadczanym wsparciem społecznym a poziomem dobrostanu emocjonalnego, w wyróżnionych okresach czasu u pacjentów po zawale serca.

**Material i metody.** W badaniach wzięło udział 113 pacjentów po zawale mięśnia sercowego. Wykorzystano Skalę Wsparcia Społecznego Krystyny Kmieciak-Baran oraz Skalę Emocji i Uczuć Egzystencjalnie Znaczących Kazimierza Popielskiego.

**Wyniki.** Wsparcie społeczne koreluje istotnie ze wszystkimi składnikami dobrostanu emocjonalnego w wyróżnionych okresach czasu. Koreluje dodatnio z pozytywnym afektem oraz bilansem afektywnym, ujemnie zaś z negatywnym afektem i pobudzeniem afektywnym.

**Wnioski.** Ważną implikacją wynikającą z badań jest potrzeba permanentnego szkolenia i wspierania personelu medycznego, tworzenia grup wsparcia nie tylko dla osób chorych, ale także dla bliskich, członków rodzin. Dobrze przygotowane otoczenie chorego może udzielać potrzebnego wsparcia zarówno informacyjnego jak i emocjonalnego.

### Abstract

**Introduction.** The issue of social support has been examined for years as far as the influence of psychosocial variable on health condition and functioning during the illness is concerned. Social support is one of the variables preventing negative effects of stress or reducing its negative influence on people's lives.

**Aim.** The aim of this research was to define the relationship between the social support experienced and the level of emotional well-being in distinguished periods of time in patients after myocardial infarction.

**Material and methods.** One hundred and thirteen people after a myocardial infarction took part in the research. The research tools used in the study were: Scale of Social Support by K. Kmieciak-Baran and the Scale of Emotions and Feelings Existentially Relevant by K. Popielski.

**Results.** Social support correlates essentially with all the components of emotional well-being in specified periods of time. It correlates favourably with the positive affect and affective balance, whereas it correlates adversely with the negative affect and affective stimulation.

**Conclusions.** The results of the research indicate the need for permanent training and support for the medical staff; the need to create supportive groups not only for ill people but also for their families and relatives. Well prepared staff can provide the necessary support – informative and emotional alike.

**Słowa kluczowe:** wsparcie społeczne, emocjonalny dobrostan, zawał serca, rehabilitacja kardiologiczna.

**Key words:** social support, emotional well-being, myocardial infarction, cardiologic rehabilitation.

The incidence rate of myocardial infarction (MI) is still very high and the tendency continues to rise. According to the Polish Registry of Acute Coronary Syndrome, the number of people hospitalized in 2007 because of the acute coronary syndromes amounted to approximately 125,000 patients [1]. This number calls for considering the requirements concerning the cardiologic rehabilitation. Concentrating only on physical training leaves out an important aspect of the treatment which is psychosocial rehabilitation that should lead to the acceptance of one's illness and to the motivation to employ preventive action [2]. The role of the social support in the process of illness adaptation will be presented in this article.

The issue of social support has been examined for years as far as the influence of psychosocial variable on health condition and functioning during the illness is concerned. Social support is one of the variables preventing from the negative effects of stress or reducing its negative influence on people's lives [3,4].

Social support should be defined taking into consideration its three aspects: structure, reception and perception. Structural support involves net support, its extent, cohesion, mutual relationships and multiplicity of social network combinations [5,6].

Another aspect of social support is its sensation which means human subjective interpretation as for one's experiencing social support [5,6]. Support perceived can be the most essential in ordinary, everyday situations when people depend on one another or, to a limited extent, on other people's help [7]. The feeling of being loved or looked after is in the nature of the support perceived. The human's awareness that one can count on other people's help results in psychological and physical well-being.

The third aspect of social support is the objective assessment of support received [5,6]. The support received is a kind of supportive treatment which people get from others at a specific point of time in the past both in general and in stressful situation [7].

The difference between support perceived and support received is that the former is rather a prospective one, whereas the latter is always retrospective. Wrześniewski and Włodarczyk [8] carried out research on the role of social support in the rehabilitation of people after myocardial infarction (MI). They paid attention to different needs and kinds of support depending on the stage of the illness. The first stage is the stay in the intensive care unit and it is connected with a threat to life. During this period informative and instrumental support are necessary and the people who support the ill person are mainly medical staff. However, family emotional support is also essential.

The next stage is connected with the period of an early cardiologic rehabilitation and the forms of support do not change, but their potential sources become more numerous. Both the members of the rehabilitation team and other ill people are a vital source of support during the sanatorium rehabilitation. During therapeutic sessions the ill person who did not cope with the problem of cigarettes smoking will take a decision to give it up easier having heard that other people managed to do that and have not smoked for some time.

In the subsequent period, social support is also needed as it lessens the risks of another heart attack or even death [8].

The determinant of human psychic functioning is his/her emotional state. Emotional well-being as experiencing both a positive and negative affect defines an emotional state. In a wider context it is a component of subjective psychic well-being [9]. It consists of four indicators which are a positive affect, a negative affect, emotional balance and emotional stimulation. Pleasant emotions and states of minds such as happiness and kindness influence the assessment of the positive affect. Categories of positive or pleasant emotions include these of low stimulation such as contentment, of medium stimulation such as pleasure and of high stimulation such as euphoria; it includes positive reactions towards others (fondness), positive reactions to activity, for instance, interest, involvement and other general positive states of mind, for example, happiness.

The negative affect involves emotions and states of mind which are unpleasant and are negative reactions to incidences, circumstances, life events or health problems. Negative or unpleasant reactions include anger, sadness, fear or anxiety. Other negative states such as loneliness or helplessness may contribute to development of disorders. Although some negative emotions are natural in life and can be important for effective functioning, they worsen the functioning of people when there are too many of them or when they last too long. Experiencing prolonged negative emotions can impair the functioning and make life unpleasant.

A positive and a negative affect have two independent dimensions of affect. To describe the role and the correlation of the positive and negative affectivity, the term 'affectivity balance' should be introduced. 'Affectivity balance' is understood as a difference between feeling the positive affect and the negative one. The co-existence of the positive and negative affect is vital to proper functioning.

## AIM

The aim of this research was to define the correlation between the social support experienced and the level of emotional well-being in distinguished periods of time in patients after myocardial infarction.

## MATERIAL AND METHODS

One hundred and thirteen people after myocardial infarction took part in the research. They all participated in early cardiologic rehabilitation in the 'Krystyna' Sanatorium-Hospital in Busko-Zdroj.

In the research 75 men (66%) and 38 women (34%) took part. The difference in the number of men and women comes mainly from the heart attack morbidity rate.

The youngest patient was 40 years old whereas the oldest was 78, the average age of the people examined was 58 years old. The fewest people were in the group above 70 years old (11 people – 9.73%), in the group between 61 and 70 there were 25 people (22%), the biggest group was the one with people aged 51 to 60 (53 people, 47%), in the youngest group (people aged 40-50) there were 24 people (21%). Such age distribution is characteristic for people suffering from myocardial infarction [10].

In the research the Scale of Social Support by Kmiecik-Baran was used [11]. The scale consists of 24 positions which measure the overall score and four kinds of social support.

The scale comprises four subscales which define particular kinds of support:

- Informative support provides an individual with the necessary knowledge and skills to resolve various problems and stressful situations. This kind of support includes also the return information which may help to confront with self-evaluation and also information given by people with similar problems and difficulties who thanks to sharing with their own experience are providing the sick person with new knowledge.
- Material support deals with providing specific knowledge how to behave in a given situation, it also deals with receiving, providing material help such as food, money, shelter, etc.
- Valuative support deals with expressing acceptance, understanding and encouragement; it influences the assessment of personal activities and self-evaluation.
- Emotional support helps to maintain emotions and relax, shows care and positive attitude towards the supported persons.

To study emotional well-being the Scale of Emotions and Feelings Existentially Relevant by Popielski [12] was used. The scale consists of 44 items – emotions and feelings. There are also 2 subscales which define a positive affect (22 items) – their intensity and a negative affect (22 items)

For defining the reliability of the scale the internal consistency of both scales was estimated (Cronbach alpha indicator). The reliability of the Positive Affect scale amounts to 0.89 and the Negative Affect is 0.91. An absolute stability was stated measuring correlations between the measures taken with the interval of four weeks in the group of 85 examined people. Spearman's rank correlation coefficient amounted to 0.55 for a Positive Affect and 0.54 for a Negative Affect. The patients completed the scale in three variants:

- How are they feeling at the moment
- How did they feel just after the myocardial infarction (retrospection)
- How do they think they will feel in a year's time (prospection)

The survey was anonymous. The sets which the patients had to complete contained general information about the aim of the research, especially about the scientific purpose

of the results. The people taking part in the survey were given a set of tests during a therapeutic session, the completed questionnaires were to be handed in during the next visit.

## RESULTS

In order to analyse the correlation between the kinds of social support and the components of emotional well-being Spearman's rank correlation coefficient was calculated. The coefficient was calculated on the basis of different kinds of social support: information, material, valuative and emotional and well-being components: a Positive Affect, a Negative Affect, Balance and Stimulation taking into consideration 3 periods of time: after myocardial infarction (MI), at present and approximately in a year's time. The results are shown in Table 1.

Having analysed the results, the following conclusion may be drawn. Social support correlates essentially with all the components of emotional well-being at specific periods of time. Social support correlates favourably with a positive affect and affective balance, whereas it correlates adversely with a negative affect and affective stimulation.

Received support causes experiencing positive emotions, patients feel energetic, happier, full of hope, motivated and more persistent. More social support leads to the decrease of negative emotions, patients do not feel so helpless, abandoned, worried, depressed or exhausted. The connection between social support and the negative affect is stronger than that referring to the positive affect at all the stages: after MI, at the time of examination and approximately in a year's time. It turns out that lack of support from other people results in experiencing negative emotions. Buoying up one's spirits, providing information, being helpful definitely influences the negative affect assessment, similar results may be found in the research results of Kahn, Hesslin and Russell (social support – negative affect  $r = -0.34$ ,  $p < 0.001$ ) [13].

The informative and emotional types of support best correlate with the components of emotional well-being. Valuative and material types of support have no connection with experiencing emotions and positive feelings; nevertheless, these kinds of support lowers the level of emotions and negative feelings, especially in the present and prospective situations.

**TABLE 1. Correlation between social support, its kinds and components of emotional well-being at different period of time (N=113).**

		Global SS	Informative	Emotional	Valuative	Material
Positive Affect	after MI	0.19*	0.19*	n.i.	n.i.	n.i.
	at present	0.20*	0.21*	0.21*	n.i.	n.i.
	in a year	0.20*	n.i.	0.23*	n.i.	n.i.
Negative Affect	after MI	-0.20*	-0.23*	-0.25**	n.i.	n.i.
	at present	-0.45***	-0.38***	-0.47***	-0.35***	-0.31***
	in a year	-0.48***	-0.43***	-0.42***	-0.44***	-0.30**
Balance Affect	after MI	0.23*	0.25**	0.27**	n.i.	n.i.
	at present	0.43***	0.39***	0.46***	0.32***	0.29**
	in a year	0.43***	0.37***	0.41***	0.36***	0.29**
Stimulation Affect	after MI	n. i.	n.i.	n.i.	n.i.	n.i.
	at present	-0.26**	-0.19*	-0.26**	-0.23*	n.i.
	in a year	-0.28**	-0.27**	-0.21*	-0.31**	n.i.

\* $p \leq 0.05$ ; \*\*  $p \leq 0.01$ ; \*\*\*  $p \leq 0.001$ ;

## DISCUSSION

Social support is an important factor which shapes the feeling of an affective well-being as well as the level of psychological state among patients after heart attacks. The results show that patients who get more social support estimate their positive affect higher, whereas the negative affect has a lower estimate. Moreover, affective balance is higher when social support is better.

Informative support is the most important kind of social support in the state of an illness [14]. An illness is a situation which requires providing specialist knowledge which most patients lack. Moreover, it is a new situation which causes anxiety and lack of straightforward positive news can often intensify emotions and negative feelings.

People who receive enough information do not feel bad, they have the feeling of being informed, which additionally makes them feel better. What is more, they do not have the feeling of not being told everything, especially the bad news, which motivates them to overcome their illness. Lack of information from other people has a connection with a stronger assessment of a negative affect. Patients then do not feel so helpless, desolated, resigned or indifferent to the future.

The importance of informative support is stressed by essential correlation with all components of emotional well-being at every stage of the disease.

Both emotional support and informative support have a huge impact on the assessment of particular indicators of emotional well-being in all specified periods of time.

Emotional support is the most common and, as it turns out, the most desirable kind of support. Patients receiving restorative and kindhearted reactions from others rank the positive affect higher and the negative one lower. Other people's care makes patients more confident, pleased, patient and feeling loved and happy rather than anxious, helpless or worried.

Material support is essential for the assessment of negative emotions and emotional balance at present and in a year's time. Those patients who cannot count on material support from other people assess the experiencing of the negative affect stronger.

Lack of material support from other people right after the heart attack does not seem to influence patients' assessment of their emotional well-being and emotional functioning. It becomes more important at later stages.

Another issue is that material support does not make patients feel happier; however, its lack makes them feel more resigned, discouraged and worried.

Valuative support is connected with such components of emotional well-being as: the negative affect, emotional balance and emotional stimulation. Valuative support does not influence the assessment of the emotional well-being indicators right after the heart attack.

Having been shown understanding and acceptance, people feel fewer negative emotions and therefore they feel less dependent, lonely or worried. Moreover, the activities assessment and encouragement correlates positively with affect balance. The feeling of being accepted is also related to the lower affect intensity. Patients are not highly

stimulated then and the emotions are on the optimal level, which improves their functioning.

## CONCLUSIONS

The above-mentioned results have not only a theoretical aim but they also carry important therapeutic implications. It was stated that emotional well-being is to a great extent connected with social support.

Cardiologic rehabilitation is a wide-ranging help for a patient after a myocardial infarction. Medicine development, especially invasive cardiology and cardio-surgery, does not mean that support or psychological help are unnecessary; it actually increases the need for such involvement. A huge progress in medicine and access to invasive cardiology surgeries such as coronography and angioplasty increase the chance of patient's survival after a myocardial infarction, but at the same time it increases the uncertainty which comes mainly from lack of patient's knowledge about invasive treatment.

It turns out that social support – specificity of medical staff interactions and involvement of family and friends in the process of rehabilitation – is a sensitive variable in the emotional well-being assessment. Lack of information support creates emotions and negative feelings. Patients who feel insufficiently informed or sense some information hidden from them experience anxiety, abandonment and sense of unfairness.

The process of rehabilitation should involve the whole family. It often happens that the closest family or relatives do not provide the patient with the information about the illness and prophylactic activities because they simply do not have the specific knowledge themselves. The patients claim that their families and relatives generate an adverse effect by saying 'You look terrible' or 'My friend lived only a month after a heart attack'. After such 'supporting' pieces of information, instead of feeling comforted, patients feel even more anxious. In the process of cardiologic rehabilitation the role of the family and relatives is not taken into consideration and the role of the medical staff responsible for the patient's disposition is often ignored as well. Patients may hear from the medical staff: 'If it hurts, it means that it is alive. It would be worse if it did not'. The research has shown how important role other people play in the patient's experiencing emotional well-being. However, the medical staff is hardly ever if at all trained how to talk with patients or how to respond to individual needs. The problem of a professional burn-out, especially among the medium-level medical staff, also appears to be present.

An important implication resulting from this research is the need for permanent training and supporting the medical staff, creating supportive circles not only for the ill people but also for their families and relatives. Such prepared people will be able to provide the needed types of support – both informative and emotional.

In the therapy, the inevitability of occurrence of negative emotions in the course of an illness should be taken into account. It is possible to improve emotional balance and to increase the number of positive reactions owing to the adaptive role of negative emotions and a greater flexibility of positive emotions [15].

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