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Coping with loss of ability vs. emotional control and self-esteem in women after mastectomy

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ABSTRACT

Aim: Does coping with the loss of ability depend on self-esteem and emotional control?
Background: Persons who experience losses in two dimensions, i.e. health and ability can deal with the loss by physical therapy, and also by mental and socio-professional rehabilitation. But far and foremost, it is the personality of the person who experiences the loss that matters most.
Materials and methods: The study included 37 patients after mastectomy. They were divided into two groups according to the time elapsed from cancer diagnosis. The study was conducted using the Questionnaire on Coping With Ability Loss (P. Wolski), Self-Esteem Loss (M. Rosenberg,) and the Courtauld Emotional Control Scale – CECS.
Results: In Group I, the higher level of acceptance in the QCAL test, the higher self-esteem. The more depression experienced by individuals, the lower is their level of self-esteem or the less depression experienced, the higher the self-esteem. In Group II, the higher the level of depression, the lower the level of anger. The greater the struggle, the lower level of anger. The lower the level of depression and struggle, the higher the level of emotion control.
Conclusions: Women diagnosed no longer than five years back do not differ from those diagnosed further back in terms of copying with the loss of ability, self-esteem and emotional control.

1. Background

Diagnosis of cancer, such as breast cancer, and a prolonged and strenuous treatment that follows are critical experiences in everybody's life. The crisis may get even worse if cancer treatment – e.g. surgery – results in acquired disability. Both cancer diagnosis and acquired disability affect all aspects of the patient's life. They lead to changes in self-image, emotional response and actions driven by it, interpersonal relations and system of values. Disintegration may be said to occur at all levels: cognitive, emotional, behavioural, social

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and spiritual. Disintegration of one's identity due to the disease and its effects and re-consolidation are of a processual nature (and have been discussed by many researchers[1]: Freud, 1917/1958; Kubler-Ross, 1969; Bowlby and Parker, 1970; Engel, 1974; Kerr 1977, Cogswell 1984, Krueger 1984, Pulton 1984, Elbirlik 1985, Livneh and Antonak, 2005, Wolski, 2010).[2–7] The objective that should be pursued by both the above mentioned sinusoidal and sequential processes is patient's return to their everyday satisfactory psychosocial functioning. To achieve that goal, a thought should be given to what conditions should be met to enable an adequate and effective rehabilitation, not just curative but also mental and socio-professional. However, to answer that question, one should begin with defining the concept of disability. Many attempts have been made to create one adequate definition accommodating the multivariate nature of that concept: beginning with the one proposed by the World Health Organisation (WHO) through the that adopted by the Polish Central Statistical Office GUS (1997) or the UN General Assembly (2006), the definitions included in the Chart of Rights for Persons with Disabilities (1997), Act on Professional and Social Rehabilitation and Employment of Disabled Persons, Pension and retirement Act (Social Security Fund), to definitions developed for scientific and scholarly purposes: Weiss,[8] Hanselmann,[9] Zabłocki.[10]

Since the 1990s, a new trend has emerged in defining and diagnosing disability. Up to then, a biological model had been used with dysfunction of the body considered mainly in the context of employment.[11,12] The understanding of disability has evolved, however, into an interactive (social) model which regards limited ability to be an effect of physical, economic or social obstacles existing in the environment of a person with a congenital or acquired disability.[13]

2. Aim

A practical question to be asked in the context of the social model is how a person experiencing losses in two dimensions, i.e. health and ability,[14] can deal with the loss? Certainly, as mentioned before, physical therapy is helpful in that process, but so is also mental or socio-professional rehabilitation. But far and foremost, it is the personality of the person who experiences the loss that matters most.[15,16] Does coping with the loss of ability depend, then, on self-esteem and emotional control? The answer will help recognise which aspects of mental rehabilitation should be focused in particular.

3. Materials and methods

The study included 37 patients with history of breast cancer, aged 52–74. They were divided into two groups according to the time elapsed from cancer diagnosis (group I: up to five years from diagnosis: $n = 18$, group II: more than five years from diagnosis $n = 19$; cancer patients perceive the first five years of remission as a critical period with the highest risk of relapse). All the subjects had undergone mastectomy. Due to the surgery, they became disabled (according to the above mentioned biological model).[11–13] The study is of a practical type.

The study was conducted using the Questionnaire on Coping With Ability Loss (P. Wolski), Self-Esteem Loss (developed by M. Rosenberg, adapted by: I. Dzwonkowska, K. Lachowicz-Tabaczek, M. Łaguna) and the Courtauld Emotional Control Scale – CECS (M. Watson, S. Greer, adapted by Z. Juczyński).

The Questionnaire on Coping With Ability Loss – QCAL (developed by P. Wolski) is designed to diagnose the stage of coping with the loss of ability. The questionnaire comprises 27 items divided into three scales: Struggle (combing three sub-scales: shock and denial – 4 items; anger – 3 items, bargaining – 8 items); Depression – 4 items; Acceptance – 8 items. Scores obtained are entered by the investigator into an Excel worksheet template in a 0/1 system where 0 stands for 'no' and 1 for 'yes' with regard to particular statements. The assessment of scores is based on the median of each of the five sub-scales corresponding to three stages of coping with the loss. Five scores are calculated – separately for each sub-scale. Results of the first three sub-scales sum up to make the score of the struggle scale. Scores above the median for a specific scale indicate at what stage the patient is, while scores below the median imply that the stage lacks any characteristic features. High scores are also assumed for neighbouring phases as a manifestation of the so called interphase transition. It is assumed that identification of the stage of coping with the loss of ability allows to predict an individual's behaviour, being representative for that particular stage.[16–18]

Self-Esteem Scale – SES (developed by M. Rosenberg, adapted by: I. Dzwonkowska, K. Lachowicz-Tabaczek, M. Łaguna) is a one-dimensional tool to assess a general level of self-esteem or a permanent predisposition understood as a conscious attitude (positive or negative) towards the self. It consists of ten diagnostic statements. Respondents are asked to show in a four-level scale to what extent they agree with each of the statements, scoring 10–40 points, where fewer points indicate a higher self-esteem. Individuals with a high sense of self-esteem are aware of their capabilities and deficiencies and accept themselves as they are while feeling the need to develop and overcome their weaknesses. Individuals with a low sense of self-esteem (high scorers) are characterised by low levels of self-satisfaction, self-acceptance and self-respect, and consequent lack of motivation to develop and overcome their weaknesses.[19]

Courtauld Emotional Control Scale – CECS (developed by M. Watson, S. Greer, adapted by: Z. Juczyński) is a tool consisting of three sub-scales each containing seven statements regarding the way of expressing anger, anxiety and depression. The score range for each of the three sub-scales is 7–28 points. By summing up the scores of the sub-scales, we determined *the general emotional control*, meaning the individual's self-reported ability to control her reactions when experiencing certain difficult emotions. *The general emotional control* falls within the 21–84 score range. The higher the score, the more suppressed the emotions are. Most statements refer to specific forms of emotional suppression. The scale is used for measuring self-reported control of anger, anxiety and depression in difficult situations and is designed to investigate adults, both healthy and diseased.[20]

4. Results

Research problem 1: Is coping with the loss of ability associated with emotional control and self-esteem of women after breast cancer treatment?

Hypothesis 1. Coping with the loss of ability is associated with emotional control and self-esteem of women after breast cancer treatment.

Hypothesis 0. Coping with the loss of ability is not associated with emotional control and self-esteem of women after breast cancer treatment.

Operationalisation of variables:

(a) Coping with the loss of ability – the measurement of the variable was made using the Copying with Loss of Ability Questionnaire. Questionnaire on Coping With Ability Loss: acceptance scale, depression scale and struggle scale.
(b) Emotional; control – measurement was made using the Courtauld Emotional Control Scale (CECS). The variable is measured by means of three scales in the questionnaire: anger, depression and anxiety and a general emotional control.
(c) Self-esteem is measured with the Self-Esteem Scale SES. The variable in the questionnaire is measured by means of a single scale.
(d) Women after breast cancer treatment – the study sample was split into two groups; the first one was made up by women who had been diagnosed within recent 5 years (not earlier than in 2010), and the other one consisted of women who had been diagnosed longer than 5 years ago.

Statistical description of the variables is shown in Tables 1–3.

The variable was checked by the Kolmogorov–Smirnov test for distribution regularity. It turned out that the above variables did not show a normal distribution.

Spearman's *r* correlation coefficient was applied to verify the research hypothesis.

The analysis shows that there are grounds for rejecting the zero hypothesis. In Group I, self-esteem is correlated with the acceptance scale. It is a positive moderately strong correlation, meaning that the higher is the level of acceptance in the QCAL test, the higher is the level of self-esteem. A strong negative correlation was found between depression and self-esteem. The more depression experienced by an individual, the lower is their level of self-esteem or the less depression experienced by them, the higher is the self-esteem.

However, in the other group of women, the relationships under study are different. A moderately strong negative correlation was found between depression and anger, which means that the higher is the level of depression, the lower is the level of anger. Anger also moderately strongly negatively correlates with struggling, meaning that the harder is the struggle, the lower is the level of anger. There is also a strong negative correlation between depression and struggle and the general result of emotion control. This result means that the lower is the level of depression and struggle, the higher is the level of emotion control.

Another research problem was raised.

Research problem 2: Do women in Group I differ from those in Group II in terms of coping with the loss of ability, self-esteem and emotional control?

Hypothesis 2. Women in Group I differ from those in Group II in terms of coping with the loss of ability, self-esteem and emotional control?

Hypothesis 0. Women in Group I do not differ from those in Group II in terms of coping with the loss of ability, self-esteem and emotional control?

Mann–Whitney's test was used to verify the zero hypothesis .

The analysis reveals no grounds for rejecting the zero hypothesis. Women in short time after diagnosis do not differ significantly from those who have lived with the diagnosis for a long time in terms of self-esteem, emotional control and copying with the loss of ability.

Disintegration caused by diagnosis of breast cancer also involves a number of changes in the functioning of an individual, which may include disability acquired in the process of treatment. Motor disability burdened with the stereotypical idea of breast cancer as a disease with a long-lasting and difficult treatment doomed to failure, provokes strong emotional reactions: paralysing anxiety, sense of helplessness and menace, anger, sorrow or, less often, despair or total isolation.[21] Adaptation to the loss of ability consists of three stages: struggle, depression and acceptance; the first stage can further be divided into three sub-stages: shock and denial, anger and bargaining.[7,16,22] Each stage and sub-stage has its own characteristics in the form of relations, mechanisms and cognitive, emotional, behavioural and social processes.[7,16,23–25] A great strength, amplitude and sinuosity of the whole spectrum of emotions is a natural component of the adaptation process that one needs to go through to regain emotional balance. Progressing through particular stages offers an opportunity to look at ourselves in a traumatic situation, at how we deal with our emotions, how we act and react in a crisis.[6,15] Anger, depression and anxiety are emotions of particular relevance in disturbing the return to emotional balance after cancer diagnosis and in connection with their consequences. The literature provides an extensive and multidimensional discussion of that issue by both describing the emotions – anger leading to frustration and aggression towards the environment or encouraging activity[7,21,26,27]; depression as a reaction to the loss of health and ability and the associated sense of lost security and control over one's life, and to the change of body image and looks[21,28–31]; anxiety as fear of potential expected threat, such as the loss of health, ability and life[31,32] – and by showing one of the ways to control them, i.e. emotional suppression[21,33]. As seen from the above description and confirmed by our own studies, the very occurrence of the aforementioned emotional reactions may contribute to worsened functioning of the patient with acquired motor disability. Using inadequate strategies of dealing with those emotions may lead to further deterioration of already deep mental

Table 1 – Descriptive statistics for self-esteem copying with loss of ability and emotional control.

Time of diagnosis		Self-esteem	Copying with loss of ability			Emotional control			
			Acceptance	QCAL depression	Struggle	Anger	Anxiety	Depression	Total
Group I (up to 5 years)	N	18	17	18	18	16	17	17	16
	Mean	28.28	6.47	0.50	7.89	12.56	13	14.05	39.38
	Median	28.50	7	0	8	12.50	12	14	38
	Dominant	29	7	0	11	9	12	13	31
	Standard Deviation	3.68	0.62	0.86	2.74	3.10	3.10	2.98	7.57
	Minimum	21	5	0	4	8	9	9	28
	Maximum	36	7	3	12	17	20	20	57
Group II (over 5 years)	N	19	18	17	16	16	18	16	14
	Mean	29.74	6.5	0.76	8.5	12.56	12.38	13.17	38.5
	Median	29	7	0	7.5	13	11.5	14	38.5
	Dominant	27	7	0	6	10	11	14	36
	Standard Deviation	2.86	0.71	0.90	3.92	3.01	3.52	2.43	6.30
	Minimum	26	5	0	2	7	5	7	25
	Maximum	36	7	2	14	17	20	17	53
For the whole sample									
Kolmogorov–Smirnov Z		0.13	**0.35****	**0.36****	**0.16***	0.15	**0.16***	0.13	0.10
Significance		0.14	<0.001	<0.001	0.34	0.08	0.03	0.13	0.20

Source: In-house study.

* Significance at $p < 0.05$.
** Significance at $p < 0.001$.

Table 2 – Copying with loss of ability vs. self-esteem and emotional control.

Time of diagnosis	Copying with loss of ability		Self-esteem	Emotional control			
				Anger	Depression	Anxiety	Total
Group I (up to 5 years)	Acceptance	Spearman's r	**0.54***	−0.25	−0.07	0.46	−0.02
		Significance	0.03	0.39	0.82	0.08	0.95
		N	16	14	15	15	14
	Depression	Spearman's r	**−0.70***	−0.11	0.24	0	0.01
		Significance	0.002	0.69	0.35	1	0.97
		N	17	16	17	17	16
	Struggle	Spearman's r	−0.43	0.16	−0.21	−0.40	−0.14
		Significance	0.09	0.57	0.44	0.13	0.63
		N	17	15	16	16	15
Group II (over 5 years)	Acceptance	Spearman's r	0.29	0.06	−0.21	0.21	0.23
		Significance	0.23	0.84	0.42	0.45	0.45
		N	18	15	17	15	13
	Depression	Spearman's r	−0.20	**−0.55***	−0.12	−0.47	**−0.69***
		Significance	0.43	0.04	0.67	0.09	0.01
		N	17	14	16	14	12
	Struggle	Spearman's r	−0.21	**0.68***	−0.09	−0.20	**−0.75***
		Significance	0.44	0.01	0.76	0.49	0.01
		N	16	13	15	14	12

Source: In-house study.

* Significance at $p < 0.05$.
**Significance at $p < 0.001$. ***Significance at the border of the statistical trend.

discomfort which giving rise to issues of cognitive and social nature.[31,32,34–36] And so for example: for the women within five years after being diagnosed with breast cancer, the more frequent and deeper are the depressive states they experience and the greater their despondency, the weaker their anxiety control is, which, in the case of that group, may cause disadaptive disorders related to anxiety about cancer recurrence. This, in turn, may be the reason for thinking of oneself in terms of worthlessness, purposelessness, hopelessness and loss of belief in the achievement of one's life goals (including recovery health and fitness, to the extent permitted by a specific physical dysfunction, to resume employment and take other social and professional roles) and social activity.[7] The above mechanism may easily result in a fixation at this stage

Table 3 – Mann–Whitney's test characteristics.

	Struggle with disability		
	Acceptance	Depression	Struggle
Mann–Whitney's *U*	145	127.5	129.5
Asymptotic significance (two-sided)	0.81	0.41	0.62
N	35	35	34

	Self-esteem
Mann–Whitney's *U*	133
Asymptotic significance (two-sided)	0.25
N	37

	Emotional control			
	Anger	Depression	Anxiety	Total
Mann–Whitney's *U*	125	130.5	122.5	104.5
Asymptotic significance (two-sided)	0.93	0.46	0.63	0.76
N	32	35	33	30

Source: In-house study.

which is likely to manifest in social anxiety, depressed mood (disadaptive despondency) and, finally, breaking contacts with friends and family leading to self-alienation and isolation.[37] For those who provide professional support to cancer patients with acquired disability, the above conclusion shows clearly how very important it is to learn the origins of disadaptive disorders and their potential effects in order to be able to build personalised therapeutic plans targeted to an individual patient with a specific constitution and life situation, while anticipating the occurrence of undesired consequences. That approach will help alleviate patient's distressful experience of losing their physical ability preceded by the loss of health.

In the group of women who are more than five years after cancer diagnosis, the higher is the level of acceptance for their disability, the better they control their anxiety. Cancer patients tend to perceive the first five years of remission as a period of the highest risk of relapse. This may explain why concerns about the recurrence of cancer become less frequent and less intense, which in turn translates into a relative emotional balance and encourages more daring efforts towards returning to physical, social and professional activity without bearing the burden of negative emotions (e.g. anxiety). The quality of life will certainly be improved that way despite the acquired disability. That shows the importance of time in the reconciliation with the loss of ability. Indeed, time seems to be a necessary and irreplaceable factor in the revival of survivors' strength, lost potential, dormant resources and the will to deal with the new reality of limited ability.[7,38] This conclusion may also serve as guidance for specialists representing the widely understood field of psycho-oncology showing that, apart from intervention in crisis, psychological education and therapy it is also important to accompany patients through their adaptation process.

Self-esteem is another variable of great importance for copying with the loss of ability, as it provides the basis for conclusions and predictions about future behaviour of an individual in a specific social position.[19,39,40] Due to its high relevance, self-esteem has often been described and studied by many authors.[39,41–50] Rosenberg, whose scale was used in this study, believed that self-esteem is a global assessment of oneself as a valuable person or an *insufficiently good* person unsatisfied with oneself.[34,51]

Therefore, individuals from Group I and II going through depression related to the loss of ability have a low self-esteem as do patients from Group II being at the stage of struggling with their disability. Those results are also confirmed by other studies which have reported that, due to the conflict related to the assessment of one's ability, disabled persons are often characterised by: lack of self-confidence, self-reported low likelihood of accomplishing the desired goal and consequent feeling of having no control over their life, no purpose in actions taken.[31,34] A conclusion to be applied in the clinical practice is that – regardless of how much time elapsed from diagnosis – cancer patients who lost their motor ability and who have a low self-esteem may find it harder to go through the process of adaptation: they may experience a sense of deficit of cognitive and energetic resources,[39,52,53] may be concerned about threats existing in their environment,[54,55] which, combined with the lack protection against effects of critical events, may result in reduced output and effectiveness of actions aimed to handle adverse and distressful events.[56] Self-esteem – as can be seen – is functional in nature. It has a strong impact on copying with ability loss while being often lowered by that loss.[39] Therefore, specialists need to know methods of improving self-esteem, not only by therapy, but also through psycho-education of patients and their families in the role of social support, particular importance of proper communication between the patient and their close ones, and the significance of satisfactory intimate relations, as well as professional and social reactivation.[57] All those components may prove helpful in mitigating the effects of the difficult process of achieving full acceptance of the life and functioning with a status of a disabled but fully valuable person. It is a conclusion worth putting into every day clinical practice by professionals working with patients who acquired disability due to cancer treatment, especially that it is confirmed by another study result: for both groups, the lower the level of acceptance, the

higher self-esteem (a stronger relationship was found in Group II, which is likely to be associated with increased confidence on account of a longer time interval from diagnosis and loss of ability).[58]

Women diagnosed no longer than five years back do not differ statistically from those diagnosed further back in terms of copying with the loss of ability, self-esteem and emotional control. This may suggest that a large majority of the above presented practical guidelines should be introduced into clinical practice irrespective of the type of cancer diagnosed and time elapsed from diagnosis and loss of ability (with special note taken only of the stage of disease at which it was diagnosed and the type of acquired disability).[59,60]

5. Conclusions

1. Within five years of diagnosis, self-esteem is correlated with acceptance and depression: the more frequent are the depressive states, the lower the self-esteem, and the higher the acceptance, the higher the self-esteem.
2. More than five years after diagnosis, the higher level of anger, the lower level of depression and the struggle. Moreover, the lower level of depression and struggle, the higher level of emotion control.
3. Women diagnosed no longer than five years back do not differ from those diagnosed more than five years ago in terms of copying with the loss of ability, self-esteem and emotional control.

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