The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of Psychosomatic Well-Being: Results from a Study of Employees in Poland

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Abstract:

Purpose: The article's main objective is to determine how the quality of interpersonal relationships at work affects employees' self-assessment of psychosomatic well-being.

Design/Methodology/Approach: The research objectives were met using a survey conducted in 2018 among 574 professionally active Poland people. Structural equation modeling (SEM) was used in the analysis of the empirical data.

Findings: The proposed theoretical model was designed to determine how particular categories of relationship quality affect employees' self-assessment of health and any health complaints they were experiencing. It was established that relationship quality positively influences self-assessment of health (the greater the quality, the more highly health was assessed), while it negatively influenced the experience of health complaints (the greater the quality, the fewer the complaints).

Practical implications: Every organization should pay special attention to the quality of interpersonal relationships at work. Low quality can negatively affect employees' assessment of their own psychophysical well-being, resulting in lower productivity, increased absenteeism, or higher staff turnover. High-quality relationships can improve well-being, which will translate positively into the functioning of an organization. Therefore, the quality of relationships should be constantly monitored, and the organization should use some tools to build high-quality relationships at work.

Originality/value: There is currently a gap in the literature about the impact of the quality of the relationships at work on employees' self-assessment of health. The article fulfills this gap and focuses not only on the cardiovascular system but also on immune and endocrine systems and the employees' psychological well-being.

Keywords: Quality of interpersonal relationships at work, employee self assessment of psychosomatic well-being.

JEL Classifications: M12, M54.

Paper type: Research study.

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1. Introduction

The article's objective is to determine how the quality of interpersonal relationships at work affects employees' self-assessment of psychosomatic well-being. There is currently a gap in the knowledge on this subject in the literature. Specifically, such studies are rare, and those that exist investigate small groups of employees (a few dozen on average) and focus on individual physiological systems of the human body (usually the cardiovascular system). Meanwhile, the psychosomatic effects considered in the article include the undeniable impact that quality of relationships has on employee's immune, cardiovascular, and endocrine systems and their psychological well-being. The cited main goal will be achieved by testing the following two research hypotheses:

1) quality of interpersonal relationships at work is positively correlated with an employee's self-assessment of the state of health (including of the cardiovascular, immune and endocrine systems, and psychological well-being),
2) quality of interpersonal relationships at work is negatively correlated with an employee's perception of health complaints (including those relating to the cardiovascular, immunological, and endocrine systems and mental health).

Achieving the objectives will involve using data from a survey conducted in September and October of 2018 on a sample of 574 professionally active people from all across Poland. SEM structural modeling was conducted, which involved using the validated QIRT-S scale proposed by Szostek (2019) (based on comprehensive qualitative and quantitative research) to measure the quality of relationships. A self-assessment survey method was also used to measure individual aspects of employees' psychosomatic health.

We expect this study to make a significant contribution to the relevant literature because it faithfully portrays the impact that the quality of interpersonal relationships at work has on employees' self-assessment of psychosomatic well-being. In the following sections, we first suggest a theoretical framework for this study. Next, we propose a suitable methodology to test our research model. We also discuss the empirical results and main conclusions of this study.

2. Literature Review

Interpersonal relationships at work are a concept that is not clearly understood in the literature (Mačerinskienė and Survilaitė, 2019). For example, Gabarro (1990) defines them as an "interpersonal relationship that is task-based, nontrivial, and of continuing duration". Meanwhile, Ragins and Dutton (2009) emphasize the transactional and mutually interdependent nature of these relationships, understanding them to be a "sequence of interactions between two people that involves some degree of mutuality, in that the behavior of one member takes some account of the behavior of the other." Interactions are understood as the individual

The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of Psychosomatic Well-Being: Results from a Study of Employees in Poland

430

exchanges (e.g., of resources or services) that are necessary (but not sufficient) for a relationship to be formed (Danielak, 2012)

It should be emphasized that all interpersonal relationships, including those at work, consist of two components, i.e., the task-related (which dominates in organizational life) and the personal (LePine *et al.,* 2012). The first focuses on the employee's duties' proper performance, while the second (which is much more pleasant) involves private interactions. The more intimate the acquaintance between employees, the more personal the relationship is. Furthermore, this may mean that the interpersonal relationship transcends to beyond the workplace (e.g., private meetings, invitations to special occasions, going to see a match together) and can even evolve into friendship (Szostek, 2019).

Interpersonal relationships between employees can be of high quality (positive/beneficial) or low quality (negative/detrimental). They can also be neutral (indifferent, impersonal, casual). In the first case, the authors indicate the requirement that each party benefits (mainly in terms of vitality and emotions) (Ragins and Dutton, 2009). If even one of the parties senses a detriment, then the relationship is negative.

The authors also focus on certain aspects of the exchange (positive or negative effects) that accompany a given relationship (Palmatier *et al.,* 2006). In this approach, the assessment of the quality of relationships is based on the subjective perception of which aspects dominate (Stephens *et al.,* 2011), for which it is important to compare them against the expectations that the parties to the relationship held (Szostek, 2019). This is how the quality of relationships is understood by at least Atrek *et al.* (2014), who describes it as the perception of how far the relationship meets the expectations, needs, predictions, goals, and aspirations of its parties (McCauley, 2012). In this approach, high-quality relationships are, for example, those based on positive emotions that are vital and accompanied by mutual interest, sympathy, willingness to cooperate, a positive organizational climate, intensive communication, trust, loyalty, and commitment to work (Glińska-Neweś, 2017; Cameron, 2008a). Conversely, low-quality relationships are characterized by negative emotions, cause stress, weaken a person, and are undesirable (Bono and Yoon, 2012; Brass *et al.,* 1998). Positive and negative relationships have also been defined for this publication.

Quality of interpersonal relationships at work is a dynamic construct that should be seen as functioning on a certain continuum of intensity (the same relationship can be positive at some points and negative at others, and rarely take extreme forms). This is because a relationship is conditioned by many factors that are endogenous to the employee (e.g., employee similarity, frequency of interaction) or exogenous (e.g., professional affiliation, organizational culture) (Szostek, 2019).

All this means that the quality of interpersonal relationships at work is an abstract construct and thus extraordinarily difficult to measure. Only certain phenomena deriving from this quality can be measured, and these are usually employee behavior (e.g., frequency of interactions, or the extent to which interactions are private) and staff attitudes and opinions (e.g., regarding work climate or mutual trust) (Ragins and Dutton, 2009). It should be emphasized that there is no universal method for measuring this quality (Campbell and Campbell, 2012), although Tschan *et al.* (2004) note that most social research in organizations is based on asking employees about them.

Although qualitative research provides more in-depth results (e.g., experiments, content analysis, observations, and even physiological measurement) (Campbell and Campbell, 2012), quantitative research is the optimal solution for measuring the quality of relationships between employees. Attention should be paid to the survey methods that predominate in management sciences (Wachowicz, 2015), including primarily self-reporting of how often specific behaviors are engaged in and the measurement of employees' attitudes or opinions. Due to the complex nature of interpersonal relationships, even the most comprehensive quantitative scales cannot guarantee reliable results because their high subjectivity is an impediment.

The quality of relationships at work is an abstract phenomenon, and hence only certain derivatives can be measured (Ragins and Dutton, 2009). These include behaviors engaged in or opinions expressed and psychosomatic reactions of the human body (Reis *et al.,* 2000). These reactions mainly affect the cardiovascular, immune, and endocrine systems and the mental state of employees.

If relationships are of high quality, then the reactions positively affect the human body (e.g., lower blood pressure, lower risk of stroke, lower tendency to infection, higher oxytocin levels, an upbeat mood). Conversely, if relationships are of poor quality, the effect is negative (e.g., higher heart rate, cardiac arrhythmia, frequent colds, higher blood cortisol, neurosis, mood disorders, insomnia) (Heaphy and Dutton, 2008) (Figure 1). In each case, hormones play a vital role (Heaphy and Dutton, 2008), i.e., stress affects the blood's levels of cortisol (the "stress hormone"; see, e.g., Schnorpfeil *et al.,* 2003) and oxytocin (the "happiness hormone") (Heaphy and Dutton, 2008). Therefore, the endocrine system affects the cardiovascular and immune systems and human psychological well-being (Heaphy and Dutton, 2008).

Research into the psychosomatic effects of interpersonal relationships' quality is rare (Bańka, 1996; Heaphy and Dutton, 2008). Unde *et al.* (1991) led by Unde *et al.,* who analyzed 148 employees (doctors, teachers, musicians, police officers, railway engineers, prison staff, and sawmill workers). Measurement covered quality of relationships with colleagues, working conditions, group integrity, systolic and diastolic blood pressure, and heart rate (measured every 5 minutes for 24 hours, including 1 working day). The researchers found positive relationships associated with lower heart rates during work, rest, and sleep. Conversely, negative

The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of
Psychosomatic Well-Being: Results from a Study of Employees in Poland

432

relationships result in higher systolic blood pressure. Similar studies have also been carried out by Rau *et al.* (2001) and Wager *et al.* (2003).

Figure 1. *Psychosomatic effects of quality of interpersonal relationships at work*
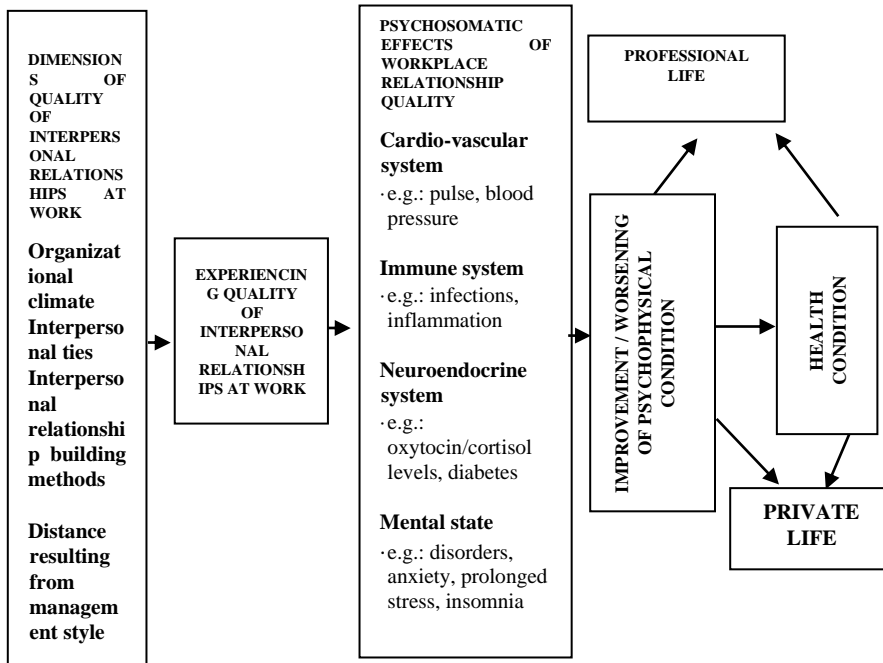
Source: Author's own work.

The research into the psychosomatic effects of quality relationships at work is rare because they require advanced medical knowledge and qualifications in conducting physiological measurements, which is, unfortunately, something that management specialists do not possess (Heaphy, 2009). Due to this compromise between declarative surveys and physiological measurements, there are studies on employees' subjective perceptions of physiological symptoms (Heaphy, 2009). These symptoms have a public dimension (e.g., drowsiness, nervousness, crying) and a hidden dimension (e.g., worsened mood, anxiety). It should be borne in mind that the intensity of various symptoms and how they are interpreted are both heavily influenced by cultural conditions (Heaphy, 2009).

3. Methodology

In September and October 2018, the author surveyed professionally active people working in Poland's private sector. Sampling was non-random (targeted). Measurement was made using an online survey. Due to the lack of access to the nationwide database of all employees in Poland, it was decided arbitrarily to send an invitation to participate in the measurement too:

1) the 200 largest enterprises according to the 2017 ranking of the weekly Wprost1,
2) 26 businesses from the Kujawsko-Pomorskie voivodeship (6 arbitrarily selected and 20 from those ranked among the 500 largest Polish businesses of 2016 by the daily Rzeczpospolita),
3) 2 professionally active people working in the private sector who are known to the author.

The scale used in this study of the quality of interpersonal relationships at work is the only one (see Glińska-Neweś, 2017, pp. 10, 41) to have been validated and adapted to Polish cultural conditions (by Szostek [2019]) – the QIRT-S (Quality of Interpersonal Relationships in the Team Scale) (Table 1). All 58 statements on this scale can be divided into two dimensions: causes of relationship quality and effects, including organizational or individual significance. These statements also fall into four categories:

1) organizational climate (statements 8,12,19,24-27,29-38,44,45,47,50-55,57,58),
2) interpersonal ties (1-7,9-11,13-16,48,49,56),
3) interpersonal relationship-building methods (39-43),
4) distance resulting from management style (17,18,20-23,28,46).

The QIRT-S scale is an appropriate and reliable instrument. In a validation study on a sample of 756 professionally active people in Poland, the author of the scale obtained an overall Cronbach's alpha of 0.963, and for individual categories of relationship quality, the same coefficient was determined to be: organizational climate, 0.966; interpersonal ties, 0.873; interpersonal relationship-building methods, 0.848; and distance resulting from management style, 0.831 (Szostek, 2019). The measuring instrument was standardized by its author (including by indicating optimal conditions for testing the quality of relationships at work). It has not been normalized.

Table 1. *The QIRT-S scale*

To what extent do you think the following statements apply to the work team you belong to? (please respond to each)	Strongly disagree	Somewhat disagree	Hard to say	Somewhat agree	Strongly agree
1. In the team we talk about private matters	1	2	3	4	5
2. In the team we know a lot about each other	1	2	3	4	5
3. In the team we can predict each other's behavior and reactions	1	2	3	4	5
4. In the team we respond to each other's needs	1	2	3	4	5
5. We have direct contact with each other in the team	1	2	3	4	5
6. In the team, we are not afraid to voice opinions critical of the company	1	2	3	4	5
7. In the team, we're not afraid to say difficult things to each other	1	2	3	4	5
8. We speak honestly with each other in the team	1	2	3	4	5

The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of Psychosomatic Well-Being: Results from a Study of Employees in Poland

434

9.	We are not afraid to show negative emotions in the team	1	2	3	4	5
10.	In the team we show each other positive emotions	1	2	3	4	5
11.	In the team, we help each other solve private problems	1	2	3	4	5
12.	We joke with each other in the team	1	2	3	4	5
13.	We like each other in the team	1	2	3	4	5
14.	The team has social contact after work (e.g. we go to the cinema, to the pub)	1	2	3	4	5
15.	In the team, we show interest in each other's private matters	1	2	3	4	5
16.	In the team, we share knowledge that is useful in private life	1	2	3	4	5
17.	In the team, we can talk to our supervisor about everything	1	2	3	4	5
18.	Our team's supervisor has a "human approach"	1	2	3	4	5
19.	There is freedom of discussion within the team	1	2	3	4	5
20.	In the team, the supervisor assigns us clear responsibilities	1	2	3	4	5
21.	In the team, the supervisor treats us all fairly	1	2	3	4	5
22.	In the team, supervisors have social contact with subordinates	1	2	3	4	5
23.	In the team, supervisors show an interest in employees' private matters	1	2	3	4	5
24.	In the team, we effectively carry out our duties	1	2	3	4	5
25.	In the team, we share the knowledge needed to accomplish tasks	1	2	3	4	5
26.	We come to work happily	1	2	3	4	5
27.	In the team, we help each other solve work-related problems	1	2	3	4	5
28.	In the team, supervisors communicate all information (both good and bad) to subordinates	1	2	3	4	5
29.	We are happy in the team	1	2	3	4	5
30.	We work together in the team	1	2	3	4	5
31.	We are loyal to each other in the team	1	2	3	4	5
32.	We stick together in the team	1	2	3	4	5
33.	We trust each other in the team	1	2	3	4	5
34.	In the team we are good at overcoming internal conflicts and tensions	1	2	3	4	5
35.	There is a good atmosphere in the team	1	2	3	4	5
36.	There is no jealousy within the team	1	2	3	4	5
37.	Within the team, we are discreet with one another on issues that are important to us	1	2	3	4	5
38.	We treat each other well in a team	1	2	3	4	5
39.	The company wants team relations to be positive	1	2	3	4	5
40.	The company promotes teamwork	1	2	3	4	5
41.	The company conducts regular consultations / meetings with employees / employee opinion surveys	1	2	3	4	5
42.	The company considers existing relationships when selecting new employees for the team	1	2	3	4	5
43.	The company cares that the workplace is attractive and well equipped	1	2	3	4	5
44.	There is a person in the team who takes care of the positive atmosphere	1	2	3	4	5
45.	Communication is effective in the team	1	2	3	4	5
46.	We are not attached to a hierarchy or to formality in the team	1	2	3	4	5
47.	In the team, we are not afraid to ask each other questions or for help in work matters	1	2	3	4	5
48.	In the team, we are not afraid to ask each other questions or for help in private matters	1	2	3	4	5
49.	The team eats meals, drinks coffee/tea, etc. together	1	2	3	4	5

50.	In the team we are able to listen to each other	1	2	3	4	5
51.	We understand each other well in the team	1	2	3	4	5
52.	We are involved in how the team functions	1	2	3	4	5
53.	Being in the team gives us positive energy	1	2	3	4	5
54.	In the team we are empathetic and polite to one other	1	2	3	4	5
55.	In the team we are not afraid to admit to mistakes	1	2	3	4	5
56.	In the team we celebrate important events together (e.g. birthdays, saint days, anniversaries, successes)	1	2	3	4	5
57.	In the team we talk about work-related issues	1	2	3	4	5
58.	In the team we share ideas on how to improve tasks	1	2	3	4	5

Source: *Szostek, 2019, p. 244-247.*

Meanwhile, respondents' state of psychophysical health was measured by asking eight closed questions, of which four (A–D) assessed state of health[3], while the next four questions (E–H) asked the respondent to indicate whether in the last year (s)he had observed any medical ailments[4].

The basic demographic variables of the examined population are given in Table 2.

Table 2. *Demographic features of respondents*

Variable		N	%
Sex	f	250	43.6
	m	324	56.4
Education	vocational	74	12.9
	secondary	266	46.3
	higher	234	40.8
Nature of job	blue collar	150	26.1
	office/clerical	380	66.2
	managerial	30	5.2
	n/d	14	2.4
Age	33.6 (mean)	22 (min.)	53 (max.)
Length of service in current job	5.7 years (mean)	2 years (min.)	31 years (max.)

Source: *Author's own work based on research results.*

4. Results

Confirmatory factor analysis made it possible to select only those that most significantly shaped a given factor and had the highest factor loadings (about quality of relationships at work and self-assessments of state of health and increased perception of health complaints). This was of great importance in terms of the estimated SEM model. Table 3 lists the individual factors and the final variables for further analysis (relationship quality variables are numbered in Table 1). Cronbach's alpha is also given, and these values attest to the high reliability of the QIRT-S scale used and the moderate reliability of the scales used for self-assessment of health and measurement of perceived psychophysical complaints.

The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of Psychosomatic Well-Being: Results from a Study of Employees in Poland

436

Table 3. *List of categories and their component variables, together with Cronbach's alpha*

Relationship quality category	Variable	Cronbach's alpha
Organizational climate	25, 27, 29, 30, 35, 38, 50, 51, 52, 58	0.920
Interpersonal ties	2, 3, 4, 6, 7, 9, 10, 11, 13, 16	0.799
Distance resulting from management style	17, 18, 20, 21, 22, 23, 28, 46	0.809
Interpersonal relationship building methods	39, 40, 41, 42, 43	0.824
Self-assessment of health condition	A, B, C, D	0.633
Increased perception of health complaints	E, F, G, H	0.491

Source: *Author's own work based on research results.*

A structural equation model (SEM) was used to analyze the impact that the quality of interpersonal relationships at work has on the human body's psychosomatic state. Currently, these models are often being used to study phenomena that are hard to measure, e.g., those related to human psychology, which is described using latent variables (Pilelienė and Grigaliūnaitė, 2017). This allowed the research hypotheses set out at the beginning to be tested. The model was developed, estimated by the maximum likelihood method, and verified in the IBM SPSS Amos v.16 package. Significance was set at 0.05.

The aforementioned four QIRT-S categories initially modeled the quality of the relationship. However, due to the strong correlations between these categories, it was finally decided to analyze the impact that the two least correlated categories had on the self-assessment of health (i.e., organizational climate and distance resulting from management style) (Figure 2).

Figure 2. *SEM model diagram*
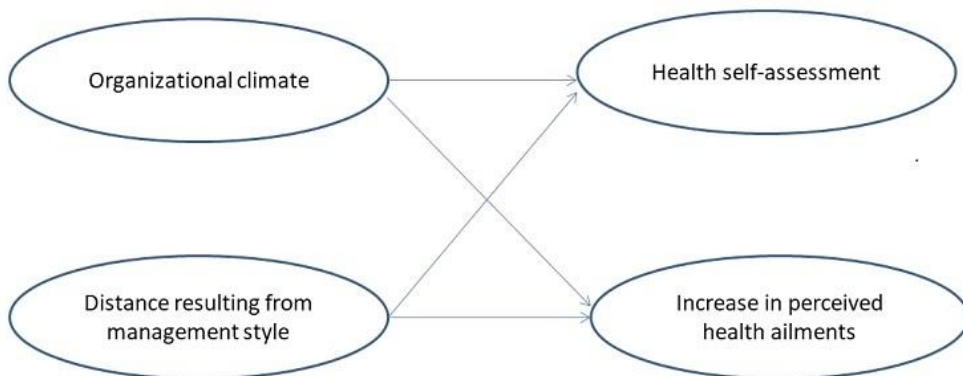
Source: *Author's own work.*

The results obtained for the external model indicated that all factor loadings are statistically significant (see Table 4). Table 5 contains the estimation of the internal model (regression analysis) by the maximum likelihood method, including standardized total effects. Table 6 also shows measurements of the model's fit to the data.

Table 4. Results of external SEM model estimation

Parameters (variable number as in Table 1)	Evaluation of parameter	P value
25	1.000	0.000
27	0.995	0.000
29	1.014	0.000
30	1.162	0.000
35	0.989	0.000
38	0.740	0.000
50	0.746	0.000
51	0.937	0.000
52	0.807	0.000
58	0.646	0.000
17	1.000	0.000
18	1.131	0.000
20	0.852	0.000
21	1.234	0.000
22	0.964	0.000
23	0.418	0.000
28	0.756	0.000
46	0.593	0.000
A	1.000	0.000
B	2.630	0.000
C	2.353	0.000
D	1.182	0.000
E	1.000	0.000
F	0.817	0.000
G	0.707	0.000
H	1.144	0.000

Source: Author's own work based on research results.

Table 5. Results of internal SEM model estimation

Relationship	Evaluation of parameter	Evaluation of standardized parameters	P value
Organizational climate → Self-assessment of health condition	0.254	0.694	0.000
Organizational climate → Increased perception of health complaints	-0.430	-0.567	0.000
Distance resulting from management style → Self-assessment of health condition	0.103	0.247	0.000
Distance resulting from management style → Increased perception of health complaints	-0.262	-0.304	0.000

Source: Author's own work based on research results.

*The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of
Psychosomatic Well-Being: Results from a Study of Employees in Poland*

438

Table 6. *Measures of the degree of SEM model fit*

Model	IFI	RMSEA	CMIN/DF
Estimated	0.876	0.060	5.635
Saturated	1		
Independent	0	0.205	25.007

Source: *Author's own work based on research results.*

5. Discussion

Interpreting the obtained results, it should be noted that both analyzed categories of quality of interpersonal relationships at work significantly affect both aspects of the employee's self-assessment of psychosomatic health, i.e., self-assessment of both state of health (a positive correlation) and increase in employee health complaints (a negative correlation) (Reis *et al.,* 2000). In practice, this means that the higher (or lower) the quality of relationships in the organizational climate or distance resulting from management style categories, the higher (or lower) the employee's self-assessment of psychosomatic health. In turn, the higher (or lower) the quality of relationships in both categories, the lesser (or greater) the health complaints the employee perceives (Heaphy and Dutton, 2008; Rau *et al.,* 2001; Unde'n *et al.,* 1991).

Analyzing standardized values of total effects, it can be seen that the category of "organizational climate" has the strongest impact on psychophysical health in both aspects (0.694 for self-assessment of health and -0.567 for perceived increases in health complaints). Assessing the model's degree of fit to the empirical data, it should be noted that IFI is 0.887 and RMSEA is 0.060, which leads us to conclude that the model fit is acceptable. Although the CMIN/DF figure deviates slightly from the norm, having exceeded 2, for SEM models, each quality measure has certain limitations, and the selection of the appropriate one is somewhat subjective (Żurek, 2016).

These results are efficient. They indicate that every organization should pay special attention to the quality of interpersonal relationships at work. And not only for ethical but also for pragmatic reasons, because low-quality such relationships can negatively affect employees' assessment of their own psychophysical well-being. This can even result in lower productivity, increased absenteeism, or higher staff turnover, which has a real and negative impact on how an organization functions. By contrast, high-quality relationships can improve well-being, which will translate positively into how the organization functions. Therefore, the quality of relationships should be constantly monitored (e.g., using the described QIRT-S scale), and preventive and corrective actions should be taken to maintain high quality. The organization has many relevant tools (e.g., promoting teamwork, developing horizontal and vertical communication, organizing company events, developing competencies through training).

To conclude the discussion, some limitations of the study should be mentioned. They mean that the presented results (mainly exploratory in nature) should be approached with a certain caution while also providing an impetus to continue the author's investigations.

First of all, the sample was selected non-randomly and contained only 574 people. The invitation to participate was mainly addressed to employees in Poland's largest companies, which may distort the results. A random sample (including company size, sector, location, etc.) and larger sample size could provide different results.

Moreover, the (quantitative) survey method used to measure the psychophysical state of employees was declarative. The scales for self-assessment of the state of health and perceived health complaints are quite general, while they relate to a very complex and ambiguous issue. This might reduce the accuracy of these scales, and thus the reliability of the entire measurement. Nevertheless, the study is illustrative, and the instruments were simplified based on the assumptions of structural modeling. Moreover, the presented results give cause to conduct further, more in-depth analyses that should use more extensive scales to measure these phenomena (e.g., the General Health Questionnaire [GHQ]).

It would also be interesting to measure psychophysical health according to strictly medical parameters. Such a study would be far more complex and time-consuming (including the need for repeated measurements over a prolonged period) but could produce more reliable results. This may provide some interdisciplinary research incentives at the meeting point between management/quality sciences and medical sciences.

Moreover, finally, the model fails to take into account multiple other variables that are important in terms of self-assessment of the state of health and perception of health complaints), such as age, present or past illnesses, level of stress, and the psychological traits of a given person (e.g., neuroticism). This was due to the desire to simplify the situation that was being analyzed, but certainly, taking these variables into account might verify the present conclusions. These investigations would be worth undertaking in subsequent studies on the issue the author has discussed.

6. Conclusions

The quality of interpersonal relationships at work is a significant variable, whose effects vary greatly. By generating and testing my empirical model, I have found that the quality of relationships at work affects employees' sense of well-being.

Thus, no grounds have been found to reject either research hypothesis, i.e.

*The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of
Psychosomatic Well-Being: Results from a Study of Employees in Poland*

440

1) quality of interpersonal relationships at work is positively correlated with self-assessment of the state of health (including of the cardiovascular, immune and endocrine systems, and psychological well-being),
2) quality of interpersonal relationships at work is negatively correlated with perception of health complaints (including those of the cardiovascular, immunological and endocrine systems, and mental health complaints).

Taking care of high-quality relations between employees can increase the staff's work effectiveness and deepen employee bonds to the organization. Measuring the quality of relationships is thus very important, allowing the actions molding the quality of interpersonal relationships at work to be optimized.

References:

Atrek, B., Marcone, M.R., Gregori, G.L., Temperini, V., Moscatelli, L. 2014. Relationship Quality in Supply Chain Management: A Dyad Perspective. Ege Academic Review 14(3), 371-381. http://dx.doi.org/10.21121/eab.2014318024.

Bedyńska, S., Książek, M. 2012. Statystyczny drogowskaz 3. Praktyczny przewodnik wykorzystania modeli regresji oraz równań strukturalnych. Warszawa: Wydawnictwo Akademickie Sedno.

Bono, J.E, Yoon, D.J. 2012. Positive Supervisory Relationships, in Turner de Tormes Eby. L., Allen, T. D. (Ed.). Personal Relationships. The Effect on Employee Attitudes, Behavior, and Well-being, East Sussex/New York: Taylor & Francis Group, 43-66.

Brass, D. J., Butterfield, K. D., Skaggs, B.C. 1998. Relationships and Unethical Behavior: A Social Network Perspective. Academy of Management Review, 23(1), 14-31. http://dx.doi.org/10.2307/259097.

Cameron, K. 2008. Paradox in Positive Organizational Change. Journal of Applied Behavioral Science, 44(7), 7-24. http://dx.doi.org/10.1177/0021886308314703.

Campbell, W.K., Campbell, S.M. 2012. Theoretical Approaches to Workplace Relationships: Suggestions From Research on Interpersonal Relationships, in Turner de Tormes Eby, L., Allen, T.D. (Ed.). Personal Relationships. The Effect on Employee Attitudes, Behavior, and Well-being, East Sussex/New York: Taylor & Francis Group, 15-39.

Danielak, W. 2012. Kształtowanie kapitału relacyjnego w małym i średnim przedsiębiorstwie. Wrocław: Wydawnictwo Uniwersytetu Ekonomicznego we Wrocławiu.

Gabarro, J.J. 1990. The Development of Working Relationships, in Galegher, J.; Kraut, R. E.; & Egido, C. (Ed.). Intellectual Teamwork. Social and Technological Foundations of Cooperative Work, New York/London: Psychology Press, 79-110.

Glińska-Neweś, A. 2017. Pozytywne relacje interpersonalne w zarządzaniu. Toruń: Wydawnictwo Naukowe UMK.

Heaphy, E.D. 2009. Bodily Insights: Three Lenses on Positive Organizational Relationships, in Dutton, J. E., Ragins, B. R. (Ed.). Exploring Positive Relationships at Work. Building a Theoretical and Research Foundation, East Sussex/New York: Psychology Press, 47-72.

Heaphy, E.D., Dutton, J.E. 2008. Positive Social Interactions and the Human Body at Work: Linking Organizations and Physiology. Academy of Management Review, 33(1), 137-162. https://doi.org/10.5465/amr.2008.27749365.

LePine, J.A., Methot, J.R., Crawford, E.R., Buckman, B.R. 2012. A Model of Positive Relationships in Team: The Role of Instrumental, Friendship, and Multiplex Social Network Ties, in Turner de Tormes Eby, L., Allen, T. D. (Ed.). Personal Relationships. The Effect on Employee Attitudes, Behavior, and Well-being. East Sussex/New York: Taylor & Francis Group, 173-194.

Levy, S.M., Herberman, R.B., Whiteside, T., Sanzo, K., Lee, J., Kirkwood, J. 1990. Perceived social support and tumor estrogen/progesterone receptor status as predictors of natural killer cell activity in breast cancer patients. Psychosomatic Medicine, 52(1), 73-85. http://dx.doi.org/10.1097/00006842-199001000-00006.

Mačerinskienė, I., Survilaitė, S. 2019. Company's intellectual capital impact on market value of Baltic countries listed enterprises. Oeconomia Copernicana, 10(2), 309-339. https://doi.org/10.24136/oc.2019.016.

McCauley, C.D. 2012. Reflection on Integration: Supervisor-Employee Relationships, in: Turner de Tormes Eby, L., Allen, T.D. (Ed.). Personal Relationships. The Effect on Employee Attitudes, Behavior, and Well-being. East Sussex/New York: Taylor & Francis Group, 95-105.

Palmatier, R.W., Dant, R.P., Grewal, D., Evans, K.R. 2006. Factors Influencing the Effectiveness of Relationship Marketing: A Meta-Analysys. Journal of Marketing 70(4), 136-153. http://dx.doi.org/10.1509/jmkg.70.4.136.

Pilelienė, L., Grigaliūnaitė, V. 2017. Colour temperature in advertising and its impact on consumer purchase intentions. Oeconomia Copernicana, 8(4), 657-669. https://doi.org/10.24136/oc.v8i4.40.

Ragins, B.R., Dutton, J.E. 2009. Positive Relationships at Work: An Introduction and Invitation, in: Dutton, J.E., Ragins, B.R. (Ed.). Exploring Positive Relationships at Work. Building a Theoretical and Research Foundation. East Sussex/New York: Psychology Press, 3-25.

Rau, R., Georgiades, A., Fredrikson, M., Lemne, C., de Faire, U. 2001. Psychosocial work characteristics and perceived control in relation to cardiovascular rewind at night. Journal of Occupational Health Psychology, 6(3), 171-181. http://dx.doi.org/10.1037/1076-8998.6.3.171.

Reis, H.T., Collins, W.A., Berscheid, E. 2000. The Relationship Context of Human Behavior and Development. Psychological Bulletin 126(6), 844-872. http://dx.doi.org/10.1037//0033-2909.126.6.844.

Schnorpfeil, P., Noll, A., Schulze, R., Ehlert, V., Frey, K., Fischer, J.E. 2003. Allostatic load and work conditions. Social Science and Medicine, 57(4), 647-656. http://dx.doi.org/10.1016/S0277-9536(02)00407-0.

Sklep.rp. 2016. Rzeczpospolita Lista 500 – Edycja 2016. Retrieved from: https://sklep.rp.pl/produkt/lista_500__edycja_2015.php.

Stephens, J.P., Heaphy, E.D., Dutton, J.E. 2011. High Quality Connections, in Cameron, K. Spreitzer, G. (Ed.). Handbook of Positive Organizational Scholarship, New York: Oxford University Press.

Szostek, D. 2019. Kontrproduktywne zachowania organizacyjne w kontekście jakości relacji interpersonalnych w zespołach pracowniczych. Toruń: Wydawnictwo Naukowe UMK.

Tschan, F., Semmer, N., Inversin, L. 2004, Work Related and „Private" Social Interactions at Work. Social Indicators Research, 67(1), 145-182. http://dx.doi.org/10.1023/B:SOCI.0000007338.60393.bf.

Unde'n, A.L., Orth-Gomer, K., Elofsson, S. 1991. Cardiovascular effects of social support in the work place: Twenty-four-hour ECG monitoring of men and women.

The Impact of Quality of Interpersonal Relationships at Work on Self-Assessment of
Psychosomatic Well-Being: Results from a Study of Employees in Poland

442

Psychosomatic Medicine, 53(1), 50-60. http://dx.doi.org/10.1097/00006842-199101000-00005.

Wachowicz, T. 2015. Metody ilościowe w naukach o zarządzaniu – miejsce badań operacyjnych i modelowania ekonometrycznego, in Czakon W. (Ed.). Podstawy metodologii badań w naukach o zarządzaniu, Warszawa: Oficyna a Wolters Kluwer business, 279-305.

Wager, N., Feldman, G., Hussey, T. 2003. The effect on ambulatory blood pressure of working under favourably and unfavourably perceived supervisors. Occupational and Environmental Medicine, 60(7), 468-474. http://dx.doi.org/10.1136/oem.60.7.468.

Wprost. 2017. Ranking 200 Największych Polskich Firm 2017. Retrieved from: http://rankingi.wprost.pl/200-najwiekszych-firm#pelna-lista.

Żurek, M. 2016. Inklinacje behawioralne na rynkach kapitałowych w świetle modeli SEM. Toruń: Wydawnictwo Naukowe UMK.

Notes:

1. "Wprost", Ranking 200 Największych Polskich Firm 2017, http://rankingi.wprost.pl/200-najwiekszych-firm#pelna-lista.
2. "Rzeczpospolita", Lista 500 – Edycja 2016,
https://sklep.rp.pl/produkt/lista_500__edycja_2015.php.
3. [A] How do you assess the general state of your cardiovascular system (heart, pressure, circulatory system, etc.)?
[B] How do you assess the general state of your immune system?
[C] How do you assess the general state of your endocrine (hormonal) system?
[D] How do you assess your overall mental state?
(possible answers: decidedly bad; somewhat bad; neither bad nor good; somewhat good; decidedly good)
4. [E] Please consider the last 12 months. Have you noticed an increased frequency of cardiovascular complaints (e.g. heart attack/failure/arrhythmia, hypertension, shortness of breath, atherosclerosis, stroke)?
[F] Please consider the last 12 months. Have you noticed an increased frequency of immunological complaints (e.g. colds, infections, inflammations, chronic diarrhea, mycoses, rheumatism, muscle pain, hair loss)?
[G] Please consider the last 12 months. Have you noticed an increased frequency of endocrinal complaints (e.g. complaints of the adrenal, pituitary or thyroid gland, diabetes)?
[H] Please consider the last 12 months. Have you noticed an increased frequency of mental health complaints (e.g. anxiety, neurosis, mood disorders, dementia, phobias, addiction, obsession, chronic stress, insomnia, sexual disorders)?
(possible answers: Strongly disagree; Somewhat disagree; Hard to say; Somewhat agree; Strongly agree).