

Research article

# Marketing Communication and Perceived Health Care Quality: antecedents of Physiotherapists' Job Satisfaction

Mirela Morcov <sup>1,2</sup>, Iuliana Raluca Gheorghe <sup>2</sup>, Consuela Mădălina Gheorghe <sup>2</sup>, Maria Veronica Morcov <sup>1,2</sup>, Corina Sporea <sup>1,2</sup>, Marian Ghiță <sup>3</sup>, Victor Lorin Purcărea <sup>2</sup>

1 "Dr. N. Robănescu" National Center of Neurorehabilitation for Children Bucharest, Romania,

2 "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania,

3 Faculty of Veterinary Medicine, University of Agricultural Sciences and Veterinary Medicine, Bucharest, Romania.

\* Correspondence: raluca.gheorghe@umfcd.ro; averopsi@yahoo.com

**Citation:** Morcov M., Gheorghe I.R., Gheorghe C.M., Morcov M.V., Sporea C., Ghiță M., Purcărea V.L. - Marketing Communication and Perceived Health Care Quality: antecedents of Physiotherapists' Job Satisfaction  
*Balneo and PRM Research Journal* 2023, 14(4): 622

Academic Editor(s):  
Constantin Munteanu

Reviewer Officer:  
Viorela Bembea

Production Officer:  
Camil Filimon

Received: 15.11.2023  
Accepted: 04.12.2023  
Published: 20.12.2023

## Reviewers:

Elena-Valentina Ionescu  
Gabriela Dogarua

**Publisher's Note:** Balneo and PRM Research Journal stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2023 by the authors. Submitted for possible open-access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

**Abstract:** The performance of a health care organization is impacted by how its management handles problems caused by disruptions in communication and shows concern for the ongoing enhancement of the communication process. Any health care organization's marketing communication approach is essential since it has an impact on both personnel and consumer satisfaction. From the perspective of physiotherapists, the current study aims to explore the connections between the perceived quality of health care services, marketing communications and job satisfaction. The sample comprised 114 individuals, the majority of whom were women, and whose average age was 39,74 ( $\pm 9,56$ ). Their average experience in the health care organization was 12,44 years ( $\pm 8,95$ ). A self-administered questionnaire that contained socio-demographic items and specific items to collect data about the importance of marketing communication, job satisfaction, and perceived quality, was used as the research instrument. The results revealed that physiotherapists' job satisfaction is positively influenced by both marketing communication and the perceived quality of care. However, to be more effective, health care managers need to offer specialized trainings to physiotherapists in order to motivate them and strengthen reliability and responsiveness when providing services.

**Keywords:** marketing communication, quality of care, job satisfaction, medical rehabilitation services, recovery services

## 1. Introduction

The progress of any healthcare system brings along the need for the employees to improve their communication skills. An increased request for communication skills emerged in the context of effective interaction with patients, who become more informed about their medical conditions and more involved in the health care decision-making process [1].

Communication is essential for establishing and maintaining relationships in general, and in an organization, it should be a priority for the management team, as focusing on communication and improving it may be the key to effective leadership [2]. Communication training courses for various professional fields may facilitate the delivery of services and implicitly, increased quality of services. In addition, the perceived service quality of employees may determine an increased patient satisfaction and supports teamwork [3]. For instance, teamwork is a necessary component of health care organizations that emphasizes collective skills to achieve common goals, defined by its mission and vision [4]. Consequently, Health Care Marketing Communication has been acknowledged to be of great importance for organizations because it is the link between employees and the organization *per se*, it plays a crucial role in achieving favorable outcomes reflected in positive feedback from employees and health care beneficiaries in a competitive environment [5, 6].

The success of a health care organization, in terms of relationships, society, and finances, is influenced by how its management handles problems related to communication deficiencies and shows concern for the ongoing improvement of the communication process

[7]. However, Health Care is a dynamic field, determined not only by the quality of medical interactions, but also by the quality of the communication among health care professionals. This relationship has evolved to the point where interaction and understanding are necessary to provide high-quality services [8].

Grönroos considered that employees played a significant role in the final good or service provided [9] and employees should be professionally trained in Marketing, so as to facilitate the development of long-lasting relationships with consumers. Similarly, Grönroos et al. pointed out that effective communication between employers and employees is critical to the success of an organization [10]. Employees, who are its internal customers, must first be satisfied with their jobs in order to satisfy the customers of an organization [11, 12]. Moreover, Marketing Communication has a positive impact on job satisfaction [13–15]. Research, which focus on health care services, revealed that consumer satisfaction was higher in organizations where marketing communications sensitized employees to provide customers with high-quality services. In their study conducted in two hospitals in Southern Taiwan, Chang and Chang argued that Marketing Communications positively impacted job satisfaction [16]. In the same vein, in their study conducted in an American health care organization, Peltire et al. [17] stated that the participating employees were satisfied with their jobs and that the factor that most explained variations in employees' job satisfaction was the perceived quality of care.

In this context, the present research aims to investigate the relationships established between the perceived importance of health care quality and marketing communications and job satisfaction from the perspectives of specialists working in health care organizations.

The conceptual framework of the research is depicted in Figure 1, and the hypotheses of the study are:

- H1: Marketing Communication is a predictive factor for Job Satisfaction of specialists working in health care organizations.
- H2: The components of Marketing Communication are predictive factors for Job Satisfaction of specialists working in health care organizations.
- H3: Perceived importance of Health Care Quality is a predictive factor for Job Satisfaction of specialists working in health care organizations.
- H4: The components of Perceived importance of Health Care Quality are predictive factors for Job Satisfaction of specialists working in health care organizations.

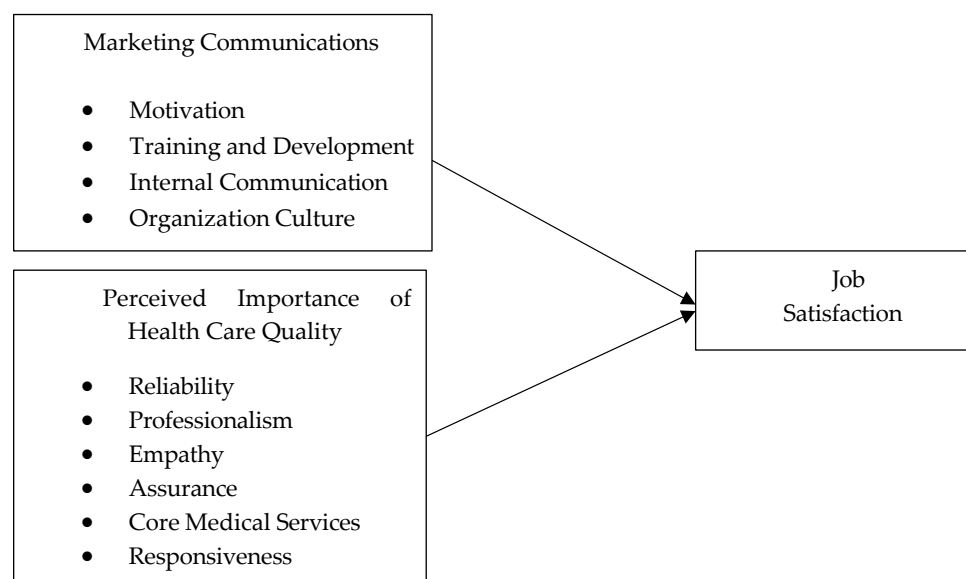


Figure 1. Conceptual framework

## 1. Materials and Methods

### 1.1. Participants and procedures

The research was conducted by using a face-to-face questionnaire between September-October 2023. The sample of respondents consisted of 114 physiotherapists from “Dr. Nicolae Robănescu” National Centre of Neurorehabilitation for Children from Bucharest, Romania.

Participants were recruited, based on the snowball non-probability sampling, after all information regarding the study was presented, and the aim and the anonymity of taking part in the research were ensured. Thus, the informed consent of participation was obtained from every respondent, underlining the anonymous and voluntary involvement. The time spent completing the survey was about 15-20 minutes, and at the end, a contact e-mail was provided.

### 1.2. Measures of the survey

The survey consisted of several translated instruments from English to Romanian and back-translated by two independent specialists. The questionnaire comprised both socio-demographic profile items and three self-reported instruments for the perceived importance of the health care quality, the perceived Marketing Communication of the Health Care organization, and the Job Satisfaction from the specialists' perspectives.

- **The socio-demographic profile**

The socio-demographic profile items referred to the reported general information of the participants, namely, gender, age, marital status, type of employment, experience in the field and the period of working in the health care organization.

- **The Health Care Service Quality Instrument**

The perceived importance of health care service quality was assessed and adapted using the Romanian version of the scale elaborated by Lee et al. (2000) in English [18]. The self-reported scale, consisting of seven dimensions (Reliability, Professionalism, Empathy, Assurance, Core Medical services, Responsiveness and Tangibles), was

made-up of 37 items. The Reliability dimension measured the ability of the respondents to perform the expected service dependently and accurately (e.g., *Reputation of the hospital; Specialist reputation among patients*), the Professionalism dimension refers to the importance of perceived knowledge, technical expertise, amount of training, etc. (e.g., *Highly experienced specialists; Knowledge and skilled specialists*), the Empathy dimension comprises the importance of caring, individualized attention provided to patients by specialists and their staff (e.g., *Providing individual consideration to the patient; Learning the patient's individual needs*), the Assurance dimension emphasizes the courtesy displayed by specialists

or organizations' staff, and their ability to inspire patient trust and confidence (e.g., *Explaining the medical service to the patient; Sensitivity to patient confidentiality*), the Core Medical services dimension refers to the importance of the central medical aspects of the service in appropriateness, effectiveness, and benefits to the patient (e.g., *Effective utilization of services; Positive Medical outcome*), the Responsiveness dimension reflects the willingness to provide a prompt service (e.g., *Providing the service at the time promised;*

*Adherence to patient appointment schedule*), while Tangibles dimension refers to the physical facilities, equipment and appearance of the contact personnel (e.g., *Professional appearance/ dress of the specialists; Visually attractive and comfortable facilities*). The responses were evaluated on a 5-point Likert scale, ranging from 1 (*Completely Disagree*) to 5 (*Completely Agree*). For the current research, the values of Cronbach's alpha ranged between 0,70 and 0,85 (Table 4).

- **The Perceived Marketing Communication Instrument**

The perceived Marketing Communication was determined by the Romanian version of the scales elaborated in English by Berry [19], Tsai and Tang [20], Rafiq and Ahmed [13] and Al-Faraj [21]. Thus, the perceived Marketing Communication instrument consisted of self-reported scales, which measured Motivation, Training and Development, Internal Communication, and the Organization culture. The Motivation dimension includes four items (e.g., *The financial incentive that the organization offers me is sufficient; The organization considers satisfying my needs a necessity*), Training and Development dimension includes four items (e.g., *I have participated in a series of training programs organized by the health care facility I work for; The health care facility frequently organizes trainings in accordance with my professional activity*), the Internal Communication dimension consists of four items (e.g., *Employees make decisions based on informal communication channels; I believe I have a respectful relationship with my colleagues*), the Organization culture dimension includes four items (e.g., *The organization considers its employees partners, and together will accomplish common goals; The decision-making process is transparent and equitable*). The responses were collected using a 5-point Likert scale, ranging from 1 (*Completely Disagree*) to 5 (*Completely Agree*). Cronbach's alpha values varied between 0,80 and 0,87 (Table 4).

- **The Perceived Job Satisfaction Instrument**

The perceived Job Satisfaction was assessed by the Romanian version of the instrument, as it was elaborated in English by Gounaris [22] and Rue and Byars [23]. The instrument comprised five items (e.g., *I feel good to work for this health care organization; I feel good about the relationships with my colleagues*). Each item was rated on a 5-point Likert scale from 1 (*Completely Disagree*) to 5 (*Completely Agree*). The value of Cronbach's alpha was 0,83 (Table 4).

### 1.3. Statistical analysis

Statistical analysis, including descriptive statistics for both qualitative data (frequency and percentage) and quantitative data (mean and standard deviation), and advanced statistical analyses were conducted using SPSS-version

28. However, the first step in the analysis process consisted of assessing the reliability of scales and subscales by calculating the Cronbach's alpha values. The recommended level of Cronbach's alpha values should be above 0,70 [24]. Consequently, to examine the underlying structure of multiple item constructs and to obtain cues for item exclusion, an Exploratory Factor Analysis (EFA) with Varimax rotation was performed. The EFA relied on the Kaiser-Meyer-Olkin measure of sampling adequacy above 0,80, the significance of Bartlett's test of sphericity ( $p < 0.001$ ), and the suppression of factor loadings less than 0,40 [25]. The EFA helps in determining to what extent the observed variables are connected to their underlying factors and in identifying the minimal number of latent factors, which account for the covariation among the observed variables [25].

After investigating the reliability and the internal structure of each scale and subscales, a correlation analysis was performed using Pearson's  $r$  in the shape of a correlation matrix. According to Kline [26], a correlation matrix is defined as a "set of cor-

relation coefficients between a number of variables”, namely the dimensions and sub-dimensions of Health Care Quality, Perceived Marketing Communication and Job Satisfaction.

Following the correlation investigation, a set of multiple linear regression analyses was conducted in order to explain the predictive significance of the independent variables, namely, Perceived Marketing Communication and Health Care Quality on Job Satisfaction. More exactly, the multiple linear regressions were performed to validate the hypotheses.

## 2. Results

### 2.1. Demographic Characteristics of the sample

The demographic profile of respondents consisted of 114 persons with the characteristics depicted in Tables 1 and 2. As such, there were more female (64,9%) than male (35,1%) respondents who participated in the study. The average age of the respondents was 39,74 (St. Dev.=9,56). The majority of participants were married (61,4%), but there were also unmarried (26,3%) and divorced (12,3%) respondents. Participants indicated they were employed on undetermined period (93%), and the average experience in the field was 14,74 years (St. Dev.=8,85). In addition, the average experience within the health care organization was 12,44 (St. Dev.=8,95).

Table 1. The sample’s characteristics by qualitative variables

Demographic variable	Frequency (N)	Percent (%)
Gender		
Male	40	35,1
Female	74	64,9
Marital status		
Unmarried	30	26,3
Married	70	61,4
Divorced	14	12,3
Type of tenure		
Undetermined tenure	106	93
Determined tenure	8	7

Table 2. The sample’s characteristics by quantitative variables

Demographic variable	Mean	Standard Deviation (St. Dev.)
Age	39,74	9,56
Experience in the field	14,74	8,85
Experience within the organization	12,44	8,95

### 2.2. Reliability and Exploratory Factor Analysis

Principal component analysis (PCA) with Varimax Rotation was performed to examine the underlying dimensions of the constructs of the study. All Kaiser-Meyer-Olkin measures of the sampling adequacy were above 0,58, and the significance of Bartlett’s tests of sphericity implies that there is a significant correlation among the variables, suggesting, in fact that the sample data is adequate for the Exploratory

Factor Analysis (Table 3). During the EFA iterative procedure, some items were excluded from further analysis due to low factorial loading (i.e., <0,40) and items which cross-loaded on two factors (i.e., loadings of one item on two factors with values between 0,40 and 0,50). Moreover, the latent factors that resulted from EFA showed satisfactory reliability (i.e., Cronbach's alpha values > 0,70) (Table 4).

Table 3. The Kaiser-Meyer-Olkin measure of the sampling adequacy and the Bartlett's Test of Sphericity

Variables (Constructs)		Kaiser-Meyer-Olkin values	Bartlett's Test of Sphericity		
			<i>p</i>	df	Approx. $\chi^2$
The Perceived Quality Scale	Reliability	0,63	0,001	10	244,80
	Professionalism	0,69	0,001	3	84,91
	Empathy	0,67	0,001	10	151,66
	Assurance	0,70	0,001	10	368,97
	Core Medical Services	0,78	0,001	21	330,37
	Responsiveness	0,67	0,001	6	112,87
	Tangibles	0,58	0,001	10	241,72
Marketing Communication	Motivation	0,75	0,001	6	240,80
	Training and Development	0,81	0,001	6	248,76
	Internal Communication	0,69	0,001	6	194,52
	Organization Culture	0,75	0,001	10	341,64
Job Satisfaction	-	0,77	0,001	10	330,82

Note: *p*- the threshold of statistical significance; df- degrees of freedom;  $\chi^2$ - Chi-square test Table 4. The Rotated component matrix

Construct and item	Mean	St. Dev.	Factor loading	Eigenvalue	% of variance	Reliability (Cronbach's alpha)
<b>Reliability</b>	<b>4,54</b>	<b>0,41</b>		<b>2,60</b>	<b>52,03%</b>	<b>0,75</b>
RE1- current and accurate medical record			0,79			
RE2- correct performance of the service for the first time			0,70			
RE3- specialist reputation among patients			0,70			
RE4- specialist reputation among other specialists			0,73			
<i>RE5- reputation of the hospital*</i>						
RE6- specialists' compliance with universal protocols			0,66			
<b>Professionalism</b>	<b>4,43</b>	<b>0,52</b>		<b>2,04</b>	<b>67,89%</b>	<b>0,73</b>
PR1- knowledgeable, skilled specialists			0,83			
PR2- highly experienced specialists			0,83			

PR3- explaining the cost/ efficiency to patients*						
PR4- specialists' history of malpractice			0,79			
<b>Empathy</b>	<b>4,31</b>	<b>0,44</b>		<b>2,53</b>	<b>50,75%</b>	<b>0,72</b>
EM1- alleviating patient concerns about the medical treatment			0,69			
EM2- personal behavior of the specialist			0,79			
EM3- learning the patient's individual needs			0,75			
EM4- providing individual consideration to the patient			0,74			
EM5- remembering names and faces of patients			0,55			
<b>Assurance</b>	<b>4,45</b>	<b>0,49</b>		<b>3,30</b>	<b>66,09%</b>	<b>0,85</b>
AS1- courteous specialists			0,91			
AS2- courteous and friendly support staff			0,85			
AS3- explaining the medical treatment stages to the patient			0,83			
AS4- friendly specialists			0,84			
AS5- sensitivity to patient's confidentiality			0,55			
<b>Core medical services</b>	<b>4,10</b>	<b>0,48</b>		<b>3,40</b>	<b>48,67%</b>	<b>0,81</b>
CM1- specialists who have published in Medical Journals			0,69			
CM2- well-established specialist referral base			0,69			
CM3- effective utilization of services			0,63			
CM4- specialists who participate in medical research			0,79			
CM5- positive medical outcome			0,79			
CM6- orientation to preventive medicine			0,65			
CM7- emphasis on patient education			0,59			
<b>Responsiveness</b>	<b>3,80</b>	<b>0,73</b>		<b>2,19</b>	<b>54,85%</b>	<b>0,72</b>
RES1- providing the service at the time promised			0,60			
RES2- prompt service without an appointment			0,80			
RES3- specialist accessibility for patients by phone or internet			0,83			
RES4- convenient office hours for patients			0,83			
RES5- adherence to patient appointment schedule (*)						
<b>Tangibles</b>	<b>4,24</b>	<b>0,40</b>		<b>2,52</b>	<b>50,46%</b>	<b>0,70</b>
TA1- professional appearance/ dress of the specialists			0,80			

TA2- professional appearance/ dress of the support staff			0,81			
TA3- location of the health care organization			0,55			
TA4- visually attractive and comfortable facilities			0,81			
TA5- up-to-date equipment to provide the service			0,58			
<b>Organization culture</b>	<b>3,92</b>	<b>0,86</b>		<b>2,70</b>	<b>67,63%</b>	<b>0,83</b>
OC1- The organization considers its employees partners, and together will accomplish common goals.			0,89			
OC2- The organization supports employees in their task management by finding different solutions.			0,93			
OC3- The decision-making process is transparent and equitable.			0,86			
OC4- Employees are organization objective oriented.			0,62			
<b>Internal Communication</b>	<b>4,09</b>	<b>0,75</b>		<b>2,96</b>	<b>74,04</b>	<b>0,87</b>
IC1- The organization encourages communication between employees.			0,89			
IC2- Employees make decisions based on informal communication channels.			0,79			
IC3- I believe I have a respectful relationship with my colleagues.			0,87			
IC4- The relationships between employees are based on respect and friendship.			0,87			
<b>Motivation</b>	<b>3,32</b>	<b>0,97</b>		<b>3,22</b>	<b>64,39%</b>	<b>0,85</b>
MO1- The financial incentive that the organization offers me is sufficient.			0,79			
MO2- The organization supports and appreciates my work, by offering incentives and certificates of appreciation.			0,91			
MO3- The organization considers its employees as being the most important criteria for its success.			0,86			
MO4- The organization considers satisfying my needs a necessity.			0,91			
MO5- The organization considers satisfying the needs of the external consumers a necessity.			0,51			
<b>Training and Development</b>	<b>4,20</b>	<b>0,65</b>		<b>2,61</b>	<b>65,45%</b>	<b>0,80</b>
TD1- I have participated to a series of training programs organized by the health care facility I work for.			0,79			



TD2- The training programs are in accordance with my professional activity.			0,86			
TD3- The health care facility frequently organizes trainings in accordance with my professional activity.			0,84			
TD4- I can always get the information I need at the right time.			0,72			
<b>Job Satisfaction</b>	<b>3,75</b>	<b>0,78</b>		<b>3,31</b>	<b>66,24%</b>	<b>0,83</b>
JS1- I feel good to work for this health care organization.			0,84			
JS2- I feel good about the relationships with my colleagues.			0,89			
JS3- I feel good about the communication with my colleagues.			0,89			
JS4- I feel good about the incentives I get.			0,78			
JS5- I am satisfied with the training opportunities offered by the health care organization.			0,63			

Note: \* Items which were excluded during the iterative procedure of EFA; St. Dev.- Standard Deviation

Table 5 displays the correlation matrix of the investigated variables. The vast majority of variables established moderate and strong statistically significant correlations. For instance, Job Satisfaction correlates strongly with Marketing Communication ( $r = 0,80, p < 0.001$ ) and moderately with Perceived Quality ( $r = 0,41, p < 0.001$ ). Moreover, Job Satisfaction established strong correlations with Motivation ( $r = 0,72, p < 0,001$ ) and Training and Development ( $r = 0,73, p < 0,001$ ), but in what concerns the components of Perceived Quality, Job Satisfaction established weak correlations.

Table 5. The correlation matrix of the variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. PQ	1													
2. MC	0,54**	1												
3. JS	0,41**	0,80**	1											
4. RE	0,63**	0,37**	0,28**	1										
5. PR	0,73**	0,29**	0,17	0,49**	1									
6. EM	0,88**	0,48**	0,38**	0,58**	0,57**	1								
7. AS	0,79**	0,46**	0,34**	0,51**	0,46**	0,69**	1							
8. CM	0,82**	0,38**	0,23**	0,43**	0,51**	0,64**	0,64**	1						
9. RES	0,77**	0,49**	0,40**	0,23**	0,51**	0,57**	0,47**	0,69**	1					
10. TA	0,78**	0,43**	0,34**	0,39**	0,40**	0,74**	0,59**	0,47**	0,42**	1				
11. MO	0,43**	0,82**	0,72**	0,21*	0,22*	0,40**	0,34**	0,34**	0,46**	0,31**	1			
12. TD	0,41**	0,66**	0,73**	0,25**	0,13	0,40**	0,30**	0,26**	0,35**	0,50**	0,46**	1		
13. IC	0,38**	0,83**	0,55**	0,29**	0,22*	0,26**	0,43**	0,25**	0,29**	0,26**	0,49**	0,42**	1	
14. OC	0,48**	0,86**	0,57**	0,39**	0,29**	0,46**	0,39**	0,32**	0,41**	0,32**	0,58**	0,37**	0,76**	1

Note. PQ- Perceived Quality; MC- Marketing Communications; JS- Job Satisfaction; RE- Reliability; PR-Professionalism; EM-Empathy; AS- Assurance; CM- Core Medical Services;

RES-Responsiveness; TA- Tangibles; MO-Motivation; TD- Training and Development; IC- Internal Communication; OC-Organization Culture; \*\* $p < 0,001$ ; \*  $p < 0,05$

To test the proposed hypotheses, several multiple linear regressions were performed at a statistically significant threshold of  $p < 0,05$ . The first proposed model, containing the independent variable Marketing Communication was adequate ( $F(1,108)=195,04$ ;  $p=0,001$ ) and was statistically significant, suggesting that Marketing Communication may be a predictor factor for Job Satisfaction ( $beta=0,80$ ;  $t=13,96$ ;  $p=0,001$ ). In addition, 64,4% of the variance of Job Satisfaction was explained by Marketing Communication. In model 2, the components of Marketing Communication which impacted Job Satisfaction were Training and Development ( $beta=0,47$ ;  $t=8,31$ ;  $p=0,001$ ) and Motivation ( $beta=0,40$ ;  $t=6,38$ ;  $p=0,001$ ). 74,1% of the variance of Job Satisfaction may be explained by Training and Development and Motivation. Model 3 included the perceived quality of care, as independent variable, and according to the results of Table 6, it was adequate ( $F(1,110)=22,22$ ;  $p=0,001$ ). The perceived quality of care explained 16,8% of the variance of Job Satisfaction ( $beta=0,41$ ;  $t=4,71$ ;  $p=0,001$ ). On components, model 4 confirmed that Reliability ( $beta=0,23$ ;  $t=2,11$ ;  $p=0,03$ ) and Responsiveness ( $beta=0,49$ ;  $t=3,94$ ;  $p=0,001$ ) explained 28,3% of the variance of Job Satisfaction. Thus, H1, H2, H3 and H4 were supported (Table 6).

Table 6. The regression summary of the impact of the independent variables on Job Satisfaction

No. of hypotheses	Model	Unstandardized coefficients		Standardized coefficients	<i>t</i>	<i>p</i>	Results of hypotheses testing
		B	Std. error	Beta			
H1	Constant	0,01	0,27		0,06	0,94	Supported
	Marketing Communication	0,96	0,06	0,80	13,96	0,001	
H2	Constant	-0,42	0,27		-1,50	0,13	Supported
	Training and Development	0,57	0,06	0,47	8,31	0,001	
	Motivation	0,32	0,05	0,40	6,38	0,001	
H3	Constant	0,31	0,73		0,42	0,67	Supported
	Perceived Quality	0,80	0,17	0,41	4,71	0,001	
H4	Constant	0,67	0,80		0,84	0,40	Supported
	Reliability	0,45	0,21	0,23	2,11	0,03	
	Responsiveness	0,54	0,13	0,49	3,94	0,001	
<i>H1- R<sup>2</sup>-64,4%, F(1, 108)=195,04, p =0,001; H2- R<sup>2</sup>- 74,1%, F(3,108)=102,77, p=0,001; H3-R<sup>2</sup>- 16,8%, F(1, 110)=22,22, p=0,001;</i> <i>H4-R<sup>2</sup>-28,3%, F(7, 104)=5,87, p=0,001</i>							

### 3. Discussion

The present study explored the relationships established between the perceived importance of quality of care, marketing communications and job satisfaction of the physiotherapists working in „Dr. Nicolae Robănescu“ National Centre of Neurorehabilitation for Children from Bucharest, Romania.

Our main findings revealed that both marketing communications and perceived quality of care had positive effects on job satisfaction of physiotherapists. Job satisfaction has been acknowledged to be an essential factor in ensuring the sustainability and development of healthcare systems [27], being also an indirect indicator of the quality of care [28]. Therefore, determining the human resources' job satisfaction is a necessity for implementing efficient external and internal activities within a health care organization [29] However,

sometimes Health Care specialists may be in difficulty in providing qualitative services to their patients or beneficiaries, unless they cooperate and work in teams within the health care organization [30]. The quality of care delivered by specialists is reflected in the quality of care provided by them to external consumers [31]. Hence, physiotherapists who believe that quality of care is important will be more satisfied with their job [32] and perform more effectively. As our findings suggested, physiotherapists who provide health care services reliably and responsibly are more satisfied with their jobs.

Concerning marketing communications, the results indicated that if managers of a health care organization implements activities specific to the training and development and to the motivation of the physiotherapists, they will be more satisfied with their jobs. In this line, different contributions centered on the services sector and implicitly in the health care services, emphasized the necessity to implement marketing communication principles, favoring the satisfaction of the service providers and their greater engagement to build stronger relationships with their external consumers [33]. This relationship between marketing communications and the provider's satisfaction is justified based on the theoretical principle of the „psychological contact“ [34], and on the need to increase the quality, delivery, and the value of their provided services [35].

In addition to understanding the antecedents of job satisfaction and the effects of marketing communication, and the perceived importance of quality of care, overall and on components, the research makes theoretical contributions to the literature about job satisfaction of professionals in the health care sector. Moreover, research provided knowledge and insight into the constructs of perceived quality of care and marketing communication that are important to physiotherapists, namely, motivation, reliability, and responsiveness, as well as training and development. Thus, physiotherapists need more training and support to effectively integrate motivational interventions into their practice [36]. In the service industry, having satisfied employees is essential to achieving high standards in the quality of services provided to consumers. Therefore, understanding how they feel about the organization's employee-orientation helps in adopting human resources policies and practices.

### Limitations

Despite the positive results obtained by the research, limitations must be taken into consideration and be addressed accordingly. First, it is essential to highlight that the study was conducted within one health care organization. Although the representativity of the sample was significant for the selected health care organization, we were not able to extend our results to other health care organizations. Future studies should focus on other health care organizations with similar or different medical specialties and replicate the study design. Second, the study used self-reported measures, which are sensitive to desirable responses and bias. Thus, multiple methods of evaluation should be employed in future analyses. Third, future research should also focus on more specific variables or include more variables in the model, since marketing communication has not been so much studied in the context of health care services, and specifically, in rehabilitation services.

## 4. Conclusions

Job satisfaction is an essential element in health care services because it is an antecedent of health care consumer perceived satisfaction. The present study investigated the relationship established between marketing communication, perceived quality of care, and job satisfaction of physiotherapists. Findings revealed that marketing communication and the importance of quality of care have effects on job satisfaction. Moreover, the components of marketing communication, training and development and motivation have impact on the job satisfaction, as well as the components of quality of care, reliability and responsiveness

have a direct effect on the job satisfaction of physiotherapists. As such, health care organizations in the field should ensure training and development and motivation-oriented activities to assess job satisfaction, but it is also necessary to encourage the development of reliability and responsiveness skills of physiotherapists so as to achieve job satisfaction.

**Author Contributions:** For research articles with several authors, a short paragraph specifying their individual contributions must be provided. The following statements should be used “Conceptualization, M.M. and I.R.G.; methodology, M.M, I.R.G, M.V.M, V.L.P.; software, C.S.; validation, I.R.G., C.M.G., M.G. and V.L.P.; formal analysis, M.M., M.V.M., I.R.G.; investigation, M.M.; resources, M.M.; data curation, M.M., I.R.G.; writing—original draft preparation, M.M., V.L.P.; writing—review and editing, all authors; visualization, all authors; supervision, V.L.P.; project administration, M.M.; All authors have read and agreed to the published version of the manuscript.”

**Funding:** “This research received no external funding”.

**Institutional Review Board Statement:** The study was conducted following the Declaration of Helsinki and approved by the Ethics Committee of the “Dr. N. Robănescu” National Clinical Centre of Neurorehabilitation for Children Bucharest, Romania (protocol code 11856, date of approval 14.09.2023) for studies involving humans.

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study. Subjects’ participation in the survey was voluntary. After the patient’s parent or legal representative signed the informed consent form, in which detailed details of the study were described, the patient was enrolled.

**Acknowledgments:** The current study is part of the first author’s larger Ph.D. project entitled “The impact of integrated marketing communication on the quality management of medical rehabilitation services”.

**Conflicts of Interest:** “The authors declare no conflict of interest”.

## References

1. Fujimoto J, Swanson E. The Development, Commercialization, and Impact of Optical Coherence Tomography. DOI: 10.1167/iops.16-19963.
2. Ennis G, Happell B, Broadbent M, et al. The importance of communication for clinical leaders in mental health nursing: the perspective of nurses working in mental health. *Issues in Mental Health Nursing* 2013; 34: 814–819.
3. Chichirez CM, Purcărea VL. Interpersonal communication in healthcare. *J Med Life* 2018; 11: 119–122.
4. Dartiguelongue JB, Cafiero PJ. Communication in health care teams. *Arch Argent Pediatr* 2021; 119: E589–E593.
5. Popescu IC. Comunicarea de marketing. *Rev Mark Online* 2007; 1: 17.
6. Elrod JK, Fortenberry JL. Integrated marketing communications: a strategic priority in health and medicine. *BMC Health Serv Res* 2020; 20: 1–5.
7. Popescu M. Communication versus marketing in an economy based on knowledge. *Rev Mark Online*; 1: 32.
8. Sharifi T, Hosseini SE, Mohammadpour S, et al. Quality assessment of services provided by health centers in Mashhad, Iran: SERVQUAL versus HEALTHQUAL scales. *BMC Health Serv Res* 2021; 21: 1–7.
9. Grönroos C. A Service Quality Model and its Marketing Implications. *Eur J Mark* 1984; 18: 36–44.
10. Grönroos C. Internal Marketing -an integral part of marketing theory. In: Donnelly JH Jr, WE George (eds) *Marketing of Services*. Chicago: American Marketing Association, 1981, pp. 236–238.
11. Berry LL. The Employee as a customer. *J Retail Bank* 1981; 3: 33–40.
12. Foreman SK, Money AH. Internal marketing: concepts, measurement and application. *J Mark Manag* 1995; 11: 755–768.
13. Rafiq M, Ahmed PK. Advances in the internal marketing concept: Definition, synthesis and extension. *Serv Mark* 2000; 14: 449–462.

- 14 Conduit J, Mavondo F. How critical is internal customer orientation to market orientation? *J Bus Res* 2001; 51: 11–24.
- 15 Mishra S. Internal Marketing- A Tool to Harness Employees' Power in Service Organizations in India. *Int J Bus Manag* 2009; 5: 185–193.
- 16 Chang CS, Chang HH. Effects of internal marketing on nurse job satisfaction and organizational commitment: Example of medical centers in Southern Taiwan. *J Nurs Res* 2007; 15: 265–274.
- 17 Peltier JW, Pointer L, Schibrowsky JA. Internal marketing and the antecedents of nurse satisfaction and loyalty. *Heal Mark Quart* 2008; 23: 75–108.
- 18 Lee H, Delene LM, Bunda MA, Kim C. Methods of Measuring Health-Care Service Quality. *J Bus Res* 2000; 48: 233–246.
- 19 Berry LL, Hensel JS, Burke MC. Improving retailer capability for effective consumerism response. *Retail* 1976; 52: 3–14.
- 20 Tsai Y, Tang TW. How to improve service quality: Internal marketing as a determining factor. *Total Qual Manag Bus Excell* 2008; 19: 1117–1126.
- 21 Al-Faraj O. A proposed model for the characteristics of appropriate organizational culture in Public sector institutions in Syria. *Damascus Univ J Econ Leg Serv* 2011; 27: 184–195.
- 22 Gounaris S. The notion of internal market orientation and employee job satisfaction: some preliminary evidence. *J Serv Mark* 2008; 22: 68–90.
- 23 Rue LW, Byars L. *Management skills and application*, 10th. McGraw Hill Irwin, New York, 2003.
- 24 Hair JF, Black WC, Babin BJ, Anderson RE. *Multivariate Data Analysis*. London: Pearson Education Limited, 2014.
- 25 Yong AG, Pearce S. A beginner's guide to factor analysis: focusing on exploratory factor analysis. *Tutor Quant Methods Psychol* 2013; 9: 79–94.
- 26 Kline RB. *Principles and Practice of Structural Equation Modeling*. The Guilford Press, 2022.
- 27 Goula A, Rizopoulos T, Stamouli MA, et al. Internal Quality and Job Satisfaction in Health Care Services. *Int J Environ Res Public Health*; 19.
- 28 Goula A. *Management of Public Hospital*. Athens: Papazisis Publications, 2007, pp. 79–96.
- 29 Cronin JJ, Taylor SA. Measuring Service Quality: A Reexamination and Extension. *J Mark* 1992; 56: 55–68.
- 30 Dhurup M. Determinants of internal service quality and the relationship with internal customer satisfaction. *African J Bus Manag* 2012; 6: 4185–4195.
- 31 Cho J, Spence Laschinger H, Wong C. Workplace Empowerment, Work Engagement and Organizational Commitment of New Graduate Nurses. *Nurs Leadersh* 2006; 19: 43–60.
- 32 Varey RJ. Internal marketing: A review and some interdisciplinary research challenges. *Int J Serv Ind Manag* 1995; 6: 40–63.
- 33 Tortosa-Edo V, Sanchez-Garcia JM, Moliner MA. Internal market orientation and its influence on the satisfaction of contact personnel. *Serv Ind J* 2010; 30: 1279–1297.
- 34 Rousseau DM. New hire perceptions of their own and their employer's obligations: A study of psychological contracts. *J Organ Behav* 1990; 11: 389–400.
- 35 Goodwin R, Moffatt F, Hendrick P, Timmons S, Chadborn N, Logan P. First point of contact physiotherapy: a qualitative study. *Physiother*. 2020; 108: 29–36.
- 36 McGrane N, Cusack T, O'Donoghue G, Stokes E. Response to commentary on: "Motivational strategies for physiotherapists". *Phys. Ther. Rev.* 2014; 19: 284–285.

