

THE RELATIONSHIP OF RELIGIOSITY AND SOCIAL SUPPORT WITH THE PAIN PERCEPTION OF PATIENTS AFTER SURGICAL PROCEDURES – A PRELIMINARY STUDY

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A. Study design/planning • B. Data collection/entry • C. Data analysis/statistics • D. Data interpretation • E. Preparation of manuscript • F. Literature analysis/search • G. Funds collection

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ABSTRACT

Introduction: The aim of the study was to assess the relationship between religiosity and social support and pain perception in patients after surgical procedures.

Material and methods: The research was carried out using the diagnostic survey method, with a survey technique and research tools in the form of a proprietary survey questionnaire, NRS numerical pain scale, and Zimet's Multi-dimensional Scale of Perceived Social Support. Statistical analysis was performed using SPSS Statistics and the Microsoft Office suite. In statistical analyses, a significance level of $p = 0.05$ was adopted. The research lasted from February to March 2020. Eighty patients hospitalized after surgery took part in the study.

Results: More than three-quarters of the surveyed patients after surgery declared themselves as religious. The vast majority of respondents felt support from family and friends during hospitalization. After surgery the patients most often rated pain levels at 3 and 4 on the NRS scale. Pain sensations were significantly dependent on only one examined independent variable, which was gender. The women reported much stronger pain sensations. Women had a sense of greater support from friends, family, and significant people. The study showed a significant correlation between the pain experienced and the religiosity of patients during hospitalization after surgery. Believing patients experienced significantly greater pain than non-believers. However, it did not show any correlation between the pain experienced by the patients and the social support received during hospitalization.

Conclusions: The presented limited study showed that there is a relationship between the pain experienced and the religiosity of patients, which indicates the need to extend the research and look for other factors modifying the pain experiences of patients.

Key words: religiosity, social support, pain.

INTRODUCTION

The success of a performed surgical procedure depends on many factors, including correct pain control. Inefficient postoperative pain control may lead to negative consequences for the patient, including the development of chronic pain [1]. In total, 30-80% of patients experience acute postoperative pain [2]. The factors influencing the pain threshold, include gender, age, disease duration, and genetic determinants, but also others like cultural conditions, a sense of loneliness, or one's philosophy of life/religion. Religious commitment may result in an increased assessment of the quality of life, better well-being, increased hopes for the future, and satisfaction with one's

health, as well as coping with stress and pain [3]. On the other hand, there are reports of the negative impact of religiosity on the perception of pain, increasing the perception of it, and causing resignation from the current treatment or various forms of prophylaxis [4-6]. A surgical procedure, especially an emergency one, may be perceived as a punishment from God, causing a strong feeling of guilt, deterioration of mood, and in extreme cases even depression or suicidal thoughts [7, 8]. As mentioned earlier, social relations are also related to the health of an individual and undertaking behaviours aimed at maintaining or restoring the health potential [9]. Patients after surgical procedures can often feel loneliness and isolation caused, among others, by pain, reduced physical fitness, reduced in-

tensity of social contacts, giving up favourite activities and hobbies, and a temporary or permanent inability to work. This can lead to mental disorders, such as anxiety, depression, and lack of control over one's current health condition. Social support plays an important role in situations of danger, misfortune, and diseases where external help is needed [10]. People who receive greater social support focus more on deliberate problem-solving, actively seek further support, and a positive re-evaluation is observed. On the other hand, for those in whom this support is lacking, wishful thinking, taking responsibility for previous events, and blaming oneself are of great importance [11, 12].

AIM OF THE STUDY

The aim of the study was to assess the relationship between religiosity and social support and the level of pain perception in patients after surgery.

MATERIAL AND METHODS

The research was carried out using the diagnostic survey method, using research tools in the form of a proprietary questionnaire, the Multidimensional Scale of Perceived Social Support by Zimet *et al.* [13], and the numerical rating scale (NRS) [14]. The original questionnaire included questions related to the profession of faith and socio-demographic data (age, gender, place of living, education). The Multidimensional Scale of Perceived Social Support made it possible to evaluate the support network and its most valuable sources among the respondents. This scale contains 12 statements referring to the multidimensionality of perceived social support, taking into account the significant person, family, and friends. The respondents referred to the statements using a 7-point scale, from 1 (*I strongly disagree*) to 7 (*I strongly agree*). The authors of the scale divided it into 3 subscales concerning support from friends, family, and a significant person. In each of the subscales, the subject could score from 4 to 28, and for the entire scale – from 12 to 84 points [13]. The NRS numerical pain scale is highly reproducible and useful in scientific applications, and it has been shown to be sensitive and reliable. Due to its comprehensibility for patients and ease of use, it is currently recommended in clinical practice for both acute and chronic pain assessment. The NRS includes 11 levels of pain intensity, where 0 is no pain at all and 10 is the worst pain imaginable [14]. Statistical analysis was performed with SPSS Statistics and MS Office. The significance of relationships between the variables of a nominal nature was tested using the chi-square (χ^2) test of independence. For quantitative variables, the difference between 2 independent mean scores was checked using Student's *t*-test for independent samples. The significance of differences between

more than 2 unrelated quantitative variables was tested using one-way analysis of variance. The correlations between the rank variables were checked using the Spearman rank correlation coefficient.

Organization and course of the study

The research was carried out among patients staying in the Department of General, Oncological, and Vascular Surgery at the 5th Military Clinical Hospital with a Polyclinic in Cracow in the period from February to March 2020. The study covered patients who underwent surgery and were in this ward. The study was conducted and developed in accordance with the principles of Good Scientific Practice, the Act of 10 May 2018 on the protection of personal data, the principles of the Helsinki Declaration, and was in accordance with the regulations of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [15]. The participants of the study were provided with all the necessary information about the study; they were informed, among others, about the purpose of the study, voluntary participation in it, and the possibility of withdrawing from participation in it at every stage of its conduct. The questionnaire was completed by the patients independently, simultaneously. Eighty-nine questionnaires were distributed among the patients. Nine questionnaires were rejected because they were only partially completed. Eighty fully completed questionnaires were qualified for the final statistical analyses.

Characteristics of the studied group

Eighty people participated in the study. More than half of the respondents were women (53.8%). The respondents were aged from 25 to 85 years, and the average age of the respondents was 52.14 years (Me = 51.5, SD = 14.05). More than half of the respondents lived in cities with more than 500,000 inhabitants (52.5%), and then in cities with up to 50,000 inhabitants (20%), in rural areas (17.5%), and in cities with 150 to 500 and 50 to 150,000 inhabitants (5%). The largest group were respondents with higher education (42.5%), followed by secondary (40%), vocational (16.3%), and primary (1.3%) education.

RESULTS

The respondents were most often patients after elective surgery (63.7%). The average length of the respondents' hospitalization was 6.96 days (SD = 2.34, Me = 7, min = 1, max = 14). The procedures of most respondents were without complications (86.3%).

Analysis of data on the religiosity of the respondents

Most of the studied group were believers (77.5%). Among the believers, the largest group were Catholics (87.1%), while among the remaining respondents were Orthodox (6.5%), Protestants (3.2%), and Muslims (3.2%). Most often, the respondents took part in religious practices once a week (39.4%), then 1-2 times a month (19.7%), several times a week (18.2%), several times a year (10.6%), and “participated in general” (12.1%). Most of the religious respondents did not serve in the religious institutions to which they belonged (65.6%). A significant relationship was found between sex ($\chi^2 [1; N = 80] = 6.051, p < 0.05, \Phi = -0.275$) and the place of residence of the respondents and religiosity ($\chi^2 [1; N = 80] = 15.841, p < 0.05, V = 0.445$). Women and people living in cities with more than 500,000 inhabitants significantly more often defined themselves as believers. However, no significant difference in religiosity depending on age, education, marital status, and professional activity was found. People who defined themselves as deeply religious constituted the most numerous group of respondents (60.3%), people seeking faith constituted 31.7%, and the remaining respondents were unable to define themselves. A significant relationship was found between the self-esteem of faith and the age of the respondents ($\chi^2 [1; N = 58] = 7.690, p < 0.05, V = 0.364$) and their place of residence ($\chi^2 [1; N = 58] = 7.206, p < 0.05, V = 0.352$). The respondents up to the age of 40 years significantly less often described themselves as deeply religious, while the respondents living in cities with more than 500,000 inhabitants significantly more often described themselves as deeply religious. There were no significant differences in the self-assessment

of faith depending on gender, education, marital status, and professional situation.

Analysis of the results obtained in the Multidimensional Scale of Perceived Social Support

The average of the results obtained by the respondents in the Multidimensional Scale of Perceived Social Support was 70.81 (Me = 72, SD = 13.75). Also, in terms of all subscales, they were close to the upper limit of possible points: in the subscale of support to friends (M = 23.24, Me = 24, SD = 4.99), families (M = 23.78, Me = 24, SD = 4.64), and a significant person (M = 23.80, Me = 24, SD = 4.80). Detailed data obtained in the Multidimensional Scale of Perceived Social Support are presented in Table 1.

Analysis with Student's *t*-test for independent samples showed significant differences in the mean results obtained in all subscales, depending on: gender – general social support index ($t = -2.639, p < 0.05$), support from friends ($t = -3.117, p < 0.01$), families ($t = -2.211, p < 0.05$), a significant person ($t = -2.182, p < 0.05$); attitude to religion – general social support index ($t = 2.548, p < 0.05$), support from friends ($t = 2.271, p < 0.05$), families ($t = 2.624, p < 0.05$), and a significant person ($t = 2.383, p < 0.05$). On all subscales, women and religious people felt a sense of greater support from friends, family, and significant others. The analysis did not reveal any significant differences depending on marital status and professional activity. The one-way analysis of variance did not show significant differences in the mean results obtained in individual subscales of the Multidimensional Scale of Perceived Social Support, depending on age, place of residence, and education.

Table 1. Results of the Multidimensional Scale of Perceived Social Support (N = 80)

The claims of the Multidimensional Scale of Perceived Social Support	I strongly disagree	I do not agree	I disagree a bit	I have no opinion	I agree a little	I agree	I definitely agree
There is a special person who is around when I am in need.	2.5	–	2.5	2.5	21.2	31.3	40.0
There is one particular person with whom I can share my joys and sorrows.	2.5	1.3	2.5	5.0	18.7	31.3	38.7
My family is really trying to help me.	1.3	–	3.7	1.3	15.0	32.5	46.2
I get the emotional help and support I need from my family	2.5	–	3.7	6.3	10.0	32.5	45.0
I have one particular person who is a real source of comfort/support for me.	2.5	–	2.5	7.5	15.0	25.0	47.5
My friends are really trying to help me.	2.5	1.3	3.7	6.3	17.5	35.0	33.7
I can count on my friends when things go wrong.	2.5	2.5	1.3	2.5	22.5	32.5	36.2
I can talk to my family about my problems.	2.5	–	2.5	8.8	12.5	35.0	38.7
I have friends with whom I can share my joys and sorrows.	2.5	1.3	3.7	5.0	18.7	31.3	37.5
There is a special person in my life who cares about my feelings.	1.3	2.5	1.3	3.7	16.2	27.5	47.5
My family is happy to help me make decisions.	3.7	–	1.3	6.3	22.5	30.0	36.2
I can talk to my friends about my problems.	2.5	2.5	–	2.5	25.0	28.8	38.7

The level of pain intensity among the respondents

The pain sensations of the respondents examined using the numerical scale of the NRS were estimated at the average level of 3.2. Pain was most often assessed at levels 3 and 4; the lowest pain level was 1, and the highest was 6. The analysis with Student's *t*-test for independent samples showed a significant difference in mean pain intensity scores depending on gender ($t [78] = -2.638, p < 0.05$). Women experienced much stronger pain than men. The one-way analysis of variance did not show a significant difference in the average pain severity ratings depending on age, place of residence, and education. The analysis with Student's *t*-test for independent samples did not show a significant difference in the mean assessment of pain intensity depending on marital status or professional activity.

The level of perceived pain and the religiosity of the respondents

Analysis with Student's *t*-test for independent samples showed a significant difference in the mean assessment of pain intensity depending on the attitude to religion ($t [78] = 2.289, p < 0.05$) or assessment of one's religiosity ($t [78] = -2.090, p < 0.05$). The religious respondents and those who described themselves as deeply religious experienced much stronger pain than non-believers (average pain intensity scores – 3.33 vs. 2.70) and people seeking faith (average pain intensity scores – 3.61 vs. 3.10).

The level of perceived pain and the received social support of the respondents

Correlation analysis showed no significant relationship between the assessment of the severity of pain experienced by the respondents and the general index of social support ($r = 0.124, p > 0.05$), as well as the level of support obtained from friends ($r = 0.145, p > 0.05$), family ($r = 0.142, p > 0.05$), and a significant person ($r = 0.069, p > 0.05$).

DISCUSSION

One of the many problems of modern medicine is postoperative pain, which accompanies most patients after surgery. In 1995, the American Pain Society recognized pain as the fifth vital parameter that should be measured and treated [16]. Effective pain relief brings several benefits for the patient, including increasing the comfort in the course of hospitalization, reducing the number of complications, and the length of stay in the hospital, as well as for the hospital – significantly reducing the costs incurred

for treatment [17]. In the treatment of pain, a holistic approach to the patient is important, treating the care of the patient not only in terms of their body and mind, but also their social environment and spirituality/religiosity. Religiousness is a very important aspect of the life of most Poles. According to the data of the Public Opinion Research Centre (CBOS) from 2018 [18], 92% of respondents defined themselves as believers, while in the above study it was 77.5% of people. There is also a noticeable difference in the proportion of deeply religious people: in the CBOS study it was 84%, while in the presented study it was 60.3%. According to the Central Statistical Office (GUS) [19], the overwhelming number of believers in Poland declare belonging to the Roman Catholic Church (91.9%); similar declarations were obtained in the presented study (87.1%). To search for results of other researchers for discussion, the following keywords were entered into 4 reference databases (Google Scholar, PubMed, Medline, and ResearchGate): patients, pain, surgery, social support, religiosity, and spirituality. As a result of the search, over 8000 articles on this subject were found, of which nearly 60 articles were analysed. Only 6 were found to be relevant to the subject of the presented work, and only one showed the influence of religiosity on the level of pain.

In the conducted study using the NRS scale, post-surgical patients most often rated their pain at levels 3 and 4. Similar values of perceived pain, at level 4, were observed in the study of postoperative pain assessment as a monitoring factor for the patient's condition by Borek *et al.* [20]. Other results can be found in the study on postoperative pain assessment by van Dijk *et al.* [21], in which patients 24 hours after surgery most often reported pain at level 2. In the study by Gawęda *et al.* [22], patients most often assessed postoperative pain on the level from 2 to 8 (mean 5.8). Patients after carotid artery restoration, studied by Rybicka [23], experienced pain on average at the level of 4.27. On the other hand, patients after cardiac surgery, examined with the visual analogue scale (VAS) scale by Jakubów *et al.* [24] on the first postoperative day, assessed their pain in the range from 1 to 8 (mean 3.18). The VAS scale was also used by Dziki *et al.* [25] in a study of patients after cardiac surgery, with the results most often at a moderate level, which means 5 points on this scale (5). The presented study showed that women declared significantly greater pain intensity. The same results were obtained in the study of patients after surgery by Kołodziej and Karpel [26]. On the other hand, the studies by Gawęda *et al.* [22] did not show any relationship between the level of pain experienced and gender, but it was shown that pain was related to the level of education and age, which was not observed in the present study. Similarly, Jakubów *et al.* [24] and Dziki

et al. [25] did not show any relationship between pain and sex. The results of the study also showed that the level of perceived pain was significantly differentiated by the level of religiosity of the respondents. Patients declaring a high degree of religiosity more often suffered greater pain. These results are consistent with the studies by Zalewska-Puchata *et al.* [27], which show that thanks to their faith, people were able to accept certain incomprehensible, new situations, but sometimes it contributed paradoxically to an increase in pain sensations. On the other hand, studies conducted by Delgado-Guay *et al.* [28] among patients with advanced cancer stage indicate that spirituality and religiosity were a source of strength and helped patients and their caregivers to overcome and cope with the disease. Equally important in the overall treatment and its course is the received social support and the use of the support networks they have built. In the conducted studies, most patients felt support from family, friends, and acquaintances. A similarly high level of social support was diagnosed by Grochans *et al.* [29] among patients with multiple sclerosis. In the presented study, the correlation analyses carried out did not show any significant relationships between the assessment of pain intensity and the received social support. On the other hand, in the study by Richmond *et al.* [30] of post-traumatic adults, the protective effect of a high sense of received social support in relation to the perceived pain was observed in the group of men and in married people. The above study showed that women received greater support from friends, family, and significant others. The sense of received social support was differentiated by education, i.e. the level of support increased with the level of education.

This study should be considered in terms of its strengths and weaknesses. Undoubtedly, one of the strengths of the study was to take up the problems that have rarely been described in the literature. A limitation of the study was the small study group, which makes it difficult to relate the results to the entire population. In addition, when designing the study, it was not uniformly specified whether the respondents were to stay on the ward for a certain number of days, and the respondents were not distinguished in terms of the disease entity present. Moreover, the research was conducted for a relatively short period of time, which did not allow us to fully obtain feedback from a large number of respondents.

Further exploration of this topic will allow us to obtain evidence on postoperative pain, which is undoubtedly important in improving the quality of life of people after surgical procedures, and it will strengthen the holistic approach to patients, taking into account the aspect of their religiosity and beliefs that might differentiate their perception of everyday experiences.

CONCLUSIONS

The study showed a significant correlation between the perceived pain and religiousness of patients during hospitalization after surgery. Believing patients felt significantly more pain than non-believers.

The study did not show any correlation between the pain experienced by the patients and the social support received during hospitalization.

Pain sensations were significantly dependent on only one of the examined independent variables, i.e. gender. Women reported experiencing much stronger pain sensations than men.

Disclosure

The authors declare no conflict of interest.

References

- Misiotek H, Cettler M, Woroń J, et al. The 2014 guidelines for post-operative pain management. *Anaesthesiol Intensive Ther* 2014; 46: 235-260.
- Szkutnik-Fiedler D, Szatek E, Grześkowiak E. Zasady leczenia bólu kooperacyjnego. *Farmacja Współcz* 2010; 3: 21-29.
- Baetz M, Bowen R. Chronic pain and fatigue: Associations with religion and spirituality. *Pain Res Manag* 2008; 13: 383-388.
- Godlewska D, Gebreselassie J. Religion and health and illness. *Język Religia Tożsamość* 2018; 1: 223-236.
- Mucha A, Majda A, Nawalana A. Religiousness and acceptance of the disease in patients after myocardial infarction. *Pielęg Pol* 2019; 74: 345-353.
- Dedeli O, Kaptan G. Spirituality and religion in pain and pain management. *Health Psychol Res* 2013; 1: 154-159.
- Wnuk M, Marcinkowski JT. Psychological functions of religion. *Probl Hig Epidemiol* 2012; 93: 239-243.
- Putyński L, Owczarek M. Style radzenia sobie ze stresem i bólem oraz umiejscowienie poczucia kontroli bólu u osób deklarujących się jako wierzące i u ateistów. In: *Nauka wobec religijności i duchowości człowieka*. Skrzypińska K, Grzymała-Moszczyńska H, Jarosz M (Eds.). Wydawnictwo KUL, Lublin 2014; 177-190.
- Kaleta K, Mróz J. Perception of interpersonal relationships and positive health behaviors of adults. *Probl Hig Epidemiol* 2012; 93: 779-784.
- Kadłubowska M, Kózka M. The role of the social support in coping with the ischaemic pain. *Probl Pielęg* 2014; 22: 293-299.
- Kurowska K, Frąckowiak M. Social support and coping with chronic disease as exemplified by type 2 diabetes. *Diabetol Prakt* 2010; 11: 101-107.
- Poradowska-Trzos M, Dudek D, Rogoż M, et al. Social networks of depressed patients *Psychiatr Pol* 2007; 16: 651-663.
- Zimet G, Dahlem N, Zimet S, Farley G. The Multidimensional Scale of Perceived Social Support. *J Pers Assess* 1988; 52: 30-41.
- Kocot-Kępska M, Szutdrzyński K. Skale oceny bólu. *Med Prakt* 2014; 5. Available at: www.mp.pl/bol/wytyczne/91404,skale-oceny-bolu
- Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and on the free movement of such data, and repealing Directive

- 95/46/EC (General Data Protection Regulation). Available at: <https://www.uodo.gov.pl/pl/131/224>
16. Grochans E, Hyrcza V, Kuczyńska M, et al. Subjective, post-operative judgment of patients pain after certain surgery. *Pielęg Chir Angiol* 2011; 2: 82-87.
 17. Larysz A, Czapla K, Copik I. Ból jako piąty parametr życiowy. *Mag Piel Potoż* 2013; 6: 40-41.
 18. Center for Public Opinion Research: Religijność Polaków i ocena sytuacji Kościoła katolickiego. No. 147/2018. Available at: https://www.cbos.pl/SPISKOM.POL/2018/K_147_18.PDF
 19. Central Statistical Office: Wyznania religijne w Polsce 2015-2018. Available at: <https://stat.gov.pl/obszary-tematyczne/inne-opracowania/wyznania-religijne/wyznania-religijne-w-polsce-20152018,5,2.html>
 20. Borek M, Szurlej A, Maciag D, et al. Postoperative pain assessment as an element of patient's condition monitoring after surgery. *PJHF* 2018; 1: 48-61.
 21. Van Dijk JF, Van Wijck AJ, Kappen TH, et al. Postoperative pain assessment based on numeric ratings is not the same for patients and professionals: A cross-sectional study. *Int J Nurs Stud* 2012; 49: 65-71.
 22. Gawęda A, Kamińska J, Wawoczna G, et al. Postoperative pain in the patient's opinion. *Pielęg Pol* 2020; 4: 209-216.
 23. Rybicka A. Does nursing supervision influence the pain, comfort, and risk of local hemorrhage-related complications in patients after surgical restoration of carotid patency? *Pielęg Chir Angiol* 2017; 11: 68-72.
 24. Jakubów P, Sewastianowicz A, Kalinowska W, et al. Behavioral assessment of pain after cardiac surgery patients. *Anestezjol Ratown* 2017; 11: 138-151.
 25. Dzikowski Ł, Glińska J, Borowiak E, et al. The factors that determine the pain control in patients after cardiac surgery. *Pielęg Chir Angiol* 2017; 11: 26-31.
 26. Kołodziej W, Karpel E. The surgical pain in surgical squad in opinion of questionnaire study with use of questionnaire the McGill-Melzack – preliminary report. *Probl Pielęg* 2008; 16: 231-236.
 27. Zalewska-Puchała J, Majda A, Majewska E. Myślenie magiczne i wiara w Boga jako modyfikatory bólu porodowego i natężenia stresu przedporodowego. In: *Międzykulturowe i terapeutyczne uwarunkowania współczesnego pielęgniarstwa*. Ogórek-Tęcza B, Pucko Z (Eds.). PWSZ in Oświęcim, Oświęcim 2012; 105-116.
 28. Delgado-Guay MO, Hui D, Parsons HA, et al. Spirituality, religiosity, and spiritual pain in advanced cancer patients. *J Pain Symptom Manage* 2011; 41: 986-994.
 29. Grochans E, Wieder-Huszla S, Jurczak A, et al. Ocena wsparcia społecznego pacjentów ze stwardnieniem rozsianym. *Probl Hig Epidemiol* 2008; 89: 419-422.
 30. Richmond NL, Meyer ML, Hollowell AG, et al. Social support and pain outcomes after trauma exposure among older adults: a multicenter longitudinal study. *Clin J Pain* 2018; 34: 366-374.