

# The level of religiosity and health behaviour of the elderly people. Pilot study

Poziom religijności i zachowania zdrowotne osób starszych. Badania wstępne

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## STRESZCZENIE

### POZIOM RELIGIJNOŚCI I ZACHOWANIA ZDROWOTNE OSÓB STARSZYCH. BADANIA WSTĘPNE

**Wstęp.** Religijność wspiera podejmowanie pozytywnych zachowań zdrowotnych.

**Cel pracy.** Ukazanie korelacji między poziomem religijności a wybranymi zachowaniami prozdrowotnymi i ryzykownymi wśród osób starszych.

**Materiał i metody.** Jako narzędzi badawczych użyto autorskiego kwestionariusza ankiety, oraz Skali Indywidualnej Religijności A. Latały i P. Sochy. W badaniu wzięło udział 120 osób. Do analizy włączono 64 osoby, wszystkie powyżej 65. roku życia. Wykorzystano test U Manna-Whitney'a, test Kruskala-Wallisa, korelację porządku rang Spearmana. W analizie przyjęto poziom istotności  $p < 0,05$ .

**Wyniki.** Badana grupa osób starszych wyznania rzymsko-katolickiego, charakteryzowała się w większości wysokim poziomem religijności i zachowaniami prozdrowotnymi. Korelacje między zachowaniami prozdrowotnymi i ryzykownymi badanych a ich religijnością okazały się jednak nieistotne. Jednakże osoby charakteryzujące się nieco wyższym poziomem religijności deklarowały zachowania takie, jak: nie palenie papierosów, nie picie alkoholu, spożywanie do 3 głównych posiłków dziennie, utrzymywanie prawidłową masę ciała, nie podjadały między posiłkami, regularnie odbywały wizyty u lekarza i lekarza denty, spędzały mało czasu przed telewizorem i komputerem, były aktywne, stosowały środki ochrony przeciwsłonecznej, wykonywały samobadanie piersi lub jąder raz w miesiącu oraz zasypiały o stałych porach.

**Wnioski.** Analizy nie potwierdziły, że religijność jest istotnym wyznacznikiem zachowań prozdrowotnych i ryzykownych osób starszych.

Słowa kluczowe: religijność, zachowania prozdrowotne i ryzykowne, osoby starsze

## ABSTRACT

### THE LEVEL OF RELIGIOSITY AND HEALTH BEHAVIOUR OF THE ELDERLY PEOPLE. PILOT STUDY

**Introduction.** Religiousness supports undertaking positive health behaviors.

**Aim.** Showing the correlation between the level of religiosity and selected pro-health and risky behaviors among the elderly people.

**Material and methods.** As research tools the original questionnaire and Scale of Individual Religion by A. Latała and P. Socha were used. The survey involved 120 participants. Analysis included 64 participants, who were all over 65 years old. U Mann-Whitney test, Kruskal-Wallis test, Spearman's rank order correlation were used. The level of significance  $p < 0.05$  was assumed in the analysis.

**Results.** The studied group of elderly Roman Catholic people was mostly characterized by a high level of religiosity and pro-health behaviors. Correlation between pro-health and risky behaviors of the respondents and their religiosity turned out to be insignificant. However, people characterized by slightly higher level of religiosity declared behaviors such as: not smoking cigarettes, not drinking alcohol, consuming up to three main meals a day, maintain a healthy body weight, not eating between meals, regular doctor and dentist visits, spending little time in front of the TV and computer, being active, using sunscreen, doing self-examination of breasts or testicles once a month and falling asleep at fixed times.

**Conclusions.** The analyses did not confirm that religiosity is an important determinant of pro-health and risky behaviours of the elderly.

Key words: religiosity, pro-health behavior, risky behavior, elderly people

## INTRODUCTION

Religion is a complex construct, which includes: religious doctrines, moral standards, various forms of worship and the people and institutions defining and promoting standards and principles of faith [1]. Religiousness in theological terms is: “engaging in beliefs and practices that are characteristic for some religious tradition” [2, p. 127]. On the psychological basis, religiosity is defined as the search for holiness in an individual or collective way, which is developed within institutionalized and organized religious traditions [2-3]. In religious terms, concepts of religiousness and spirituality are closely linked and identified. In psychological approach, especially among American researchers, these two concepts are being demarcate and spirituality is thought to be the process of finding the meaning of life [4, 5].

Many years of research show that religiosity often has a positive effect on health. Persons presenting certain health behaviors resulting from religious views, including not smoking, not consuming alcohol, and following a diet that restricts meat products, affect the survival rate by approximately 10 years compared to the general population. Also in the field of mental health, believers are less likely to suffer from depression, are less prone to suicidal thoughts and risky behavior [6-9]. Religion plays a special role in the treatment of addiction [10-11]. On the other hand, there are reports that religiosity itself is a risk factor for psychosis and other mental disorders, also religious beliefs lead to the cessation of immunization, prenatal treatment and other methods of conventional medicine [6-9].

Religion plays a particularly important role at the end of human life, helping the elderly to adapt to old age. Religiousness supports the emergence of positive health behaviours. Taking into account the spiritual and religious sphere of patients, especially the elderly and people with chronic diseases, it contributes to the improvement of their care and quality of life [12].

It is allowed to use the term “religiosity of the elderly people”, which denotes religious beliefs and religiously motivated behaviours characteristic for this age group. The religiosity of the elderly people is certainly different from the style of religiosity presented by younger age groups, as is the scale of religious commitment within different age groups [13]. The oldest people are the most religious age group, which is usually explained by a decrease in the sense of social security in the elderly and existential anxiety appearing in old age, related primarily to vision impending death. Older people, compared to younger age groups, have more free time to devote to religious practices. Attention is also paid to the compensatory function of participation in religious rituals, which are a substitute for social contacts which disappear in old age, which may be a motivation to engage in community religious activities [14]. There are many trajectories in religious commitment in old age, and it is difficult to talk about a single, constant pattern of religiosity where one becomes more and more engaged as the years go by. Undoubtedly, older people more often than younger people say that religion is very important in their lives. The percentage of people assessing the importance of religion very highly in the older

age group is much higher than in the younger age group, so for the currently old people, religion is more important than for the currently young people, regardless of whether these people became more religious in old age, or not [15-17].

The authors of the study decided to verify the hypothesis assuming the existence of a relationship between the level of religiosity and health behaviours of elderly people. The aim of the study was to show the correlation between the level of religiosity and the chosen pro-health and risky behaviours among elderly people population.

## MATERIALS AND METHODS

### Methods, techniques, research tools

For the purposes of the study, the aforementioned comprehensive and multidimensional definition and structure of religion was adopted by Herbut [1]. The studies used a method of diagnostic survey and estimation. The research tools were: Individual Religiosity Scale by Andrzej Latała and Paweł Socha and the original questionnaire, which included 35 questions concerning the professed religion and selected health behaviours, as well as socio – demographic variables. The Individual Religiosity Scale was used to study attitudes and values towards the Catholic religion. The items on the scale concerned the following components of religiosity: religious doctrine (question: 1, 4, 6, 11, 13, 17), religious morality (question: 2, 3, 9, 14, 19, 21), religious worship (question: 5, 8, 10, 16, 18, 23), and attitude to the Catholic Church (question: 12, 15, 20, 22, 24, 25 ). The respondents’ task was to answer the questions, marking values from 1 to 5 on the scale, where 1 means „I do not agree” and 5 „I agree”. In the Scale, points can be obtained in the range of 24-120 (item 7, which relates to the religious declaration, was not included in the result). The higher the result obtained by the respondents, the higher the degree of convergence of views with the official model [18].

In order to select appropriate statistical tests to examine the relationships, all the necessary assumptions allowing the use of individual statistical tests were verified, i.e.: regularity of distribution using the Shapiro- Wilk test, appropriate sample size, variables on an appropriate scale (quantitative or qualitative), randomness of the samples taken. Verification of the above assumptions indicated that the main quantitative dependent variable which were the results of the Individual Religiosity Scale, did not have multi-group normality of distribution. Accordingly, to evaluate the selected compounds, the following tests and statistical methods were used: Mann-Whitney U test (Z) in order to compare the two groups of independent variables in terms of a quantitative satisfying the condition of the normality order, Kruskal-Wallis one-way analysis of variance (H), to compare minimum three independent groups in terms of quantitative variables satisfying the condition of the normality and the correlation rank order, Spearman’s rank correlation coefficient (R), in order to examine the relationship between the variables of ordinal and quantitative (regardless of normality of the distribution). During the statistical verification of the collected material,  $p < 0.05$  was assumed as the significance level of the obtained results.

## Organization and course of the study

The study was carried out on a random simple trial. The selected trial consisted of 320 people, of which only 120 agreed to take part in the study, because of the threat of SARS-CoV-2. The inclusion criteria were: age > 65 and Roman Catholic faith. The exclusion criterion was: a declaration of being a non-believer or practicing a religion other than Catholic. For this reason, 36 people from among the recruited were eliminated. When encoding data and introducing them to the database, it was decided to exclude from the analysis of the image order next 20 people, because of the large data gaps in the questionnaires received from them. In view of the above, the database included the questionnaires from 64 people and on that data statistical analysis were performed. The studies were conducted from January to March 2020. The time to complete the questionnaires was approximately 15 minutes. Questionnaires were delivered personally by the investigators. The respondents filled in the questionnaires themselves after they were delivered. Written consent to participate in the research was obtained prior to data collection. No incentive was offered to participate in the study. The data has been anonymised. The study was designed, carried out, and the results prepared in accordance with the principles of: 1) Good Scientific Practice, 2) the Act of 10 May 2018 on personal data protection, 3) the Declaration of Helsinki and in accordance with 4) Regulation of the European Parliament and Regulation (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 5) the repeal of Directive 95/46/EC (general regulation about data protection). The participants of the study were provided with all necessary information about the study, they were informed, among others, about the purpose of the study, ensuring anonymity, voluntary participation and the possibility of withdrawing from participation at every stage of its conduct, without giving any consequences and reasons for refusal.

## Characteristics of the study group

The number of 64 people were included in the analysis. All the respondents were over 65 years of age and were Catholics. The study involved 55 women (86%) and 9 men (14%).

## RESULTS

### Analysis of the results

The results of the Individual Religiosity Scale (SIR) of the examined people developed on average at 98.22 (SD=25.62) points (on 120 possible). Every second respondent obtained a SIR score of at least 106 points, and every fourth – a minimum of 119 points. It can, therefore, be concluded that the respondents presented a high level of religiosity (Tab. 1).

Table 2. shows the response given by the examined people in Individual Religiosity Scale. In all questions, the most common answer was “I agree”, while the least frequent answer was “I rather disagree”. The highest positive value within the religiosity among respondents was cult religion (“participation

in the Mass”), next was religious doctrine (“there is a God in the Trinity”), and religious morality (“I strive for attainment of the grace of God”). The lowest position was taken by the attitude towards the Catholic Church as a religious organization (“I participate in the cultural life organized by the Church”).

■ Tab. 1. Results of the Individual Religiosity Scale (SIR)

	Descriptive statistics					
	Mean standard deviation	Median [Q25-Q75]	Min. Max.	Confidence interval		Standard error
				-95.00%	+95.00%	
Individual Religiosity Scale	98.22 ± 25.62	106 [93-119]	24-120	91.82	104.62	3.20

Source: Own study.

■ Tab. 2. Individual Religiosity Scale (SIR) – answers of respondents

	I do not agree	I rather disagree	Yes and no	I rather agree	I agree
	%	%	%	%	%
The Saint Spirit watches us over	10.94	1.56	6.25	18.75	62.50
Lessons of the religion bring up the young people	9.38	17.19	26.56	10.94	35.94
The salvation is an aim of my life	6.25	4.69	14.06	17.19	57.81
God cares about the man	6.25	0.00	6.25	18.75	68.75
I participate in religious processes	12.50	7.81	20.31	9.38	50.00
At the end of the world there will be the Last Judgment	7.81	1.56	12.50	15.63	62.50
I am a believer	4.69	1.56	0.00	9.38	84.38
On Ash Wednesday I participate in sprinkling my head with ash	12.50	1.56	14.06	3.13	68.75
The reception of saint sacraments is my duty	10.94	1.56	6.25	15.63	65.63
I participate in the Holy Mass	10.94	0.00	10.94	1.56	76.56
There is a God in the Holy Trinity	9.38	0.00	9.38	1.56	79.69
I participate in the cultural life organized by the Church	9.38	12.50	26.56	14.06	37.50
The Sacred Scriptures are the voice of God	7.81	6.25	12.50	12.50	60.94
The confession cleans me of my sins	10.94	0.00	18.75	6.25	64.06
Only the Church Court can discard marriage	9.38	6.25	9.38	7.81	67.19
I pray in the evening	12.50	0.00	12.50	6.25	68.75
Thanks to saint we receive of mercies	10.94	0.00	7.81	15.63	65.63
I go to confession	15.63	0.00	12.50	6.25	65.63
I endeavour after approaching of the divine mercy	6.25	3.13	9.38	10.94	70.31
The organization of the Church is an example for other institutions	7.81	14.06	25.00	12.50	40.63
The happiness of the man is in God	6.25	1.56	15.63	9.38	67.19
I support the missionary activity of the Church	9.38	6.25	20.31	14.06	50.00
I receive the Holy Communion	10.94	1.56	10.94	7.81	68.75
I will reach true happiness only in heaven	9.38	3.13	10.94	9.38	67.19
I read books or religious periodicals	12.50	9.38	20.31	10.94	46.88

\* the position No. 7, „I am believer” was not made allowance in general calculations, because was treated, as the religious declaration. Source: Own study.

■ Tab. 3. Correlation of health behaviours with the level of religiosity of the respondents in the Individual Religiosity Scale (SIR)

	SIR Result (1)	SIR Result (2)	The value of test $u$ , the value of $p$
The frequency of attending medical check-ups: 1. once every 3-6 months 2. more than once every 3 months	M = 91.5; SD = 29.86	M = 106.24; SD = 20.66	R = 0.23; t (N-2) = 1.55; p = 0.129)
The frequency of attending dental check-ups: 1. less often than once a year 2. once a year	M = 97.03; SD = 26.08	M = 101.06; SD = 29.56	R = 0.02; t (N-2) = 0.15; p = 0.881
Number of main meals consumed during the day: 1. three meals a day 2. four meals a day	M = 98.71; SD = 25.97	M = 97.5; SD = 25.58)	Z = 0.34; p = 0.733
Snacking between meals: 1. no 2. often	M = 99.18; SD = 23.59	M = 97.78; SD = 24.84	H (2, N = 64) = 0.26; p = 0.879
Keeping a normal body weight: 1. no 2. yes	M = 93.47; SD = 24.38	M = 99.94; SD = 26.09	Z = 1.62; p = 0.105
Use of a special diet: 1. no 2. yes	M = 98.59; SD = 25.64	M = 97; SD = 26.41	Z = -0.29; p = 0.769
Daily amount of water to be drunk: 1. approx. 0.5 liters/day 2. 1-2 liters/day	M = 103.39; SD = 21.89	M = 97.2; SD = 26.84	R = 0.12; t (N-2) = 0.97; p = 0.334
Using protective creams and covering the head while in the sun: 1. no 2. yes	M = 90.2; SD = 36.51	M = 103.39; SD = 21.89	Z = 1.41; p = 0.159
Performing a self-examination of the breast or testicles: 1. no 2. yes	M = 95.7; SD = 26.45	M = 102.42; SD = 24.12	Z = 1.41; p = 0.159
Falling asleep at regular times: 1. no 2. yes	M = 95.32; SD = 25.21	M = 100.47; SD = 26.06	Z = 1.47; p = 0.142
Spending time in front of the TV and computer: 1. 2-3 hours/day 2. up to 1 hour/day	M = 95.14; SD = 22.28	M = 100.44; SD = 27.08	R = 0.03; t (N-2) = 0.21; p = 0.832
Physical activity during the day: 1. 30 minutes/day 2. 30 minutes several times a month	M = 104.38; SD = 18.18	M = 90.13; SD = 28.29	R = -0.04; t (N-2) = -0.3; p = 0.763
Smoking: 1. no 2. yes	M = 98.5; SD = 27.03	M = 96.7; SD = 16.95	Z = -1.06; p = 0.288
Consuming alcohol: 1. no 2. yes	M = 99.02; SD = 24.31	M = 95.08; SD = 31.14	Z = -0.12; p = 0.907
Drinking coffee: 1. less than 2 cups a day 2. more than 2 cups a day	M = 97.2; SD = 29.57	M = 99.75; SD = 23.2	R = 0.01; t (N-2) = 0.1; p = 0.923

The second stage of the statistical analysis was to assess the relationships regarding religiosity and selected pro-health and risky behaviours in the elderly people (Tab. 3). The results turned out to be different, but not statistically significant, which means, that the level of religiosity definitely did not differentiate these behavioural health and risk among the surveyed elderly.

A higher level of religiosity, although statistically insignificant, was connected in older patients with the positive health behaviour: not being adult smokers, not drinking fresh alcohol, eating small maximum of three main meals per day, maintaining the small normal weight, not eating snacks between meals, using protection sunscreen, doing self-examination of breasts or testicles once a month, attending more than once every three months at the medical control visits or taking dental controls once a year, falling asleep at fixed times, spending less time in front of the TV, the computer, and being active physically.

The lower level of religiosity, also statistically insignificant, was observed in patients drinking thorough day larger amounts of water (1.5-2 L) in relation to that who drinks smaller amounts (approx. 0.5 L).

## DISCUSSION

Research that is the subject of this paper aimed to determine the relationship between level of religiosity of examined elderly people and represented by them pro-health and risky behaviours.

In the presented study, the obtained results of the level of religiosity are similar to the results of studies conducted among Polish seniors, which show that this age group is characterized by greater religious commitment than others [14]. In the research conducted by I. Borowik, she shows the great involvement of the elderly in religious rituals. She states that the greatest ritualism is characteristic of those who have the most time, i.e. primarily people of higher age groups, who have no retirement professional duties and the burdens related to family responsibilities. Which is not to say that tendency to ritualism is not a characteristic of people experiencing shortages of time – the elite in terms of education, income and power. The intensity of religious commitment in old age is differentiated by a number of socio- demographic factors, primarily by education (people with a lower level of education are more religiously committed, especially when it comes to ritual practices) and place of residence (greater involvement in rural areas compared to cities) [13,14,19]. In the presented study, all respondents came from the city.

In terms of the correlation between religiosity of older people and pro-health and risky behaviours, the current study obtained ambiguous results. On the one hand it demonstrates that the higher level of religiosity was recorded in the group e.g.: a non-smokers, drinking less alcohol, eating a maximum of 3 main meals a day, holding normal weight, applying sunscreen, or performing self-examination of the breast or testicles once a month. In fact, no statistically significant correlation between religiosity and health behaviours was found in the studied group of elderly people, but it can be concluded



that more religious people were characterized by pro-health behaviours and less religious ones – risk behaviours. This does not mean that religion had no effect on the behaviour of healthy respondents that do not take into account the religious aspects of the exercise of care and respect for the needs of older people to practice religion in a manner appropriate to each of them. Research of B. Woźniak and partners [20,21] showed that religious commitment in old age has a statistically significant relationship with mental health; it also condemned the influence of religious norms on the lifestyle or attitude towards one's own body. Pawlikowski and Marczewski in their article [8] showed a study, in which it was a positive relationship between religiousness and physical activity, observance of a healthy, well-balanced diet or the use of drugs and addiction prevention. Religion had the positive impact on mental health, by the rites of penance and reconciliation, which release from guilt, and meditation and prayer can help reduce stress levels. They also introduced findings about the negative impact of religion on health, which passed refusing some medicinal benefits. The article by D. Godlewska and J. Gebreselassie [6] presents the results of many studies, which show that religion greatly influences health and disease. On the issue of mental health it has been shown that those involved religiously are less likely to be depressed, have suicidal thoughts and tendencies, and they have a smaller inclination to the abuse of psychoactive substances. It was also found that religious commitment influences specific health behaviors related to religious orders, such as not using stimulants, following a vegetarian diet, regular physical activity and the obtained social support, which translates into an extension of life and a higher assessment of its quality. The article also presents reports in which religiosity had a negative impact on activities related to health prevention, including preventive vaccinations or prenatal tests [6]. Research on religiosity using Individual Religiosity Scale by A. Latała and P. Socha was conducted by A. Sikora, A. Majda, A. Kurowska [22] analysing the beams between religion and behaviour health of people with depression. In these studies, no significant correlation was observed between the level of religiosity of patients with depression and the level of their health behaviours. To sum up, some of the results of the presented study cannot be compared to the results of other authors' studies presented above, because they took into account other variables for the analysis. Some of the results of the presented study were consistent, and some did not correspond to the results presented in the reports mentioned above.

### Restrictions

The presented work focuses on selected explanations of the relationship between religiosity and pro-health and risky behaviours of the elderly people. This choice reflects the subjective opinions of the authors on the accuracy of the presented correlations. The authors focus on the positive relationships between religiosity and health behaviours, but are also aware of possible negative interactions between the analysed variables. Research related to religion and religiosity poses a problem with the precise

definition of the concepts of religion or religiosity, not to mention the definition of health or disease. Another difficulty is the interchangeable use of the concepts of religiosity or spirituality in literature, which are often identical in the Polish tradition, as well as the very interpretation of these concepts among the respondents, which may differ from each other due to different cultural traditions. There is also difficulty in developing a theoretical model that could explain how religion affects health [23]. Another problem is the existence of many disturbing factors, such as sample size and representativeness, the influence of variable social approval, because, as E. Zasepa writes after Karyłowski, it is saturated with tools measuring moral feelings and behaviour [24]. Disturbing factors in the study could be uncontrollable variables, such as: functional, emotional and cognitive limitations of the surveyed people, patients physical health, economic status, the sociodemographic status (e.g. the loss of loved ones, shrinking relationships, withdrawal from activity and, place of residence, education).

### Implications for practice

The influence of religiosity on health behavior is still a little explored phenomenon and there is not enough research on this subject. Therefore, in the future this issue needs more time to devote, because not only it is an insufficiently understood topic, difficult for methodological reasons, but that could help in understanding certain behaviours and increase causes on health behaviours, which could facilitate education, improve the quality of life of older people and care for them. You have to have in mind on the one hand the fact that older people in varying degrees declare the need to take topics in the field of religion and spirituality. On the other hand, be aware, however, that religion/spirituality may influence the perception of health and illness, as well as to take preventive measures, decisions about the treatment process and can even incentive to carry out medical recommendations. Although it was a pilot study and a small sample from one geographical area, the results may be useful in practice to develop a modified research tool, such as a questionnaire, or educational materials for older people adapted to their needs, including religious/spiritual needs.

### CONCLUSIONS

1. Analysis did not confirm that religiosity is an important determinant of pro-health and risky behaviours of the elderly people.
2. Extending the health dimension to include religious well-being and its relationship with pro-health and risky behaviours of older people requires further repetitive research on large samples, taking into account social, cultural, environmental and biological criteria.

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