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# Effects of religion on selected health behaviors

Wpływ religii na wybrane zachowania zdrowotne

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religion, health behaviors, health

#### Słowa kluczowe

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# Summary

**Introduction.** Religion serves health in many aspects, such as: explicative and meaning-creating, normative and control, care and charity, therapeutic – or healing.

Aim. The aim of the study was to assess the influence of religiosity on health-related behaviors.

**Material and methods.** The study involved a total of 790 people, hospitalized for various reasons in 3 hospitals in Eastern Poland. The study involved the method of a diagnostic survey using the author's questionnaire, the standardized Inventory of Health Behaviors (IZZ) according to Juczyński and the standardized Multivariate Location of Health Control (MHLC) version B. Wallston, B.S. Wallston, R. Devellis, in the Polish adaptation of Juczyński. The consent of the bioethical committee of Medical University in Bialystok no. R-I-002-434-2014, as well as written consent from all the subject.

**Results.** Believers and practitioners showed slightly better health indicators in terms of proper eating habits (p = 0.0134), preventive behaviors (p = 0.0015), mental attitude (p = 0.0036). People who declared themselves as non-believers and non-practitioners paid more attention to the impact of internal health control on their health (p = 0.0200).

**Conclusions.** In the group of respondents confirming their religiosity, the percentage of smokers who consumed alcohol was lower than in the group of non-believers or un-declared. Religiously undecided people more often assessed their level of health behaviors at the low level. Believers and practitioners showed slightly better health indicators in terms of proper eating habits, preventive behaviors and mental attitude. People who declared themselves as non-believers and non-practitioners paid more attention than believers and practitioners to the influence of internal health control on their health.

#### Streszczenie

**Wstęp.** Religia spełnia wobec zdrowia wiele funkcji, takich jak: eksplikacyjna i sensotwórcza, normatywna i kontrolna, opiekuńcza i charytatywna, terapeutyczna – czy uzdrowieńcza.

Cel pracy. Celem pracy była ocena wpływu religijności na zachowania związane ze zdrowiem.

**Materiał i metody.** Badaniami objęto łącznie 790 osób hospitalizowanych z różnych przyczyn w trzech szpitalach wschodniej Polski. W badaniu zastosowano metodę sondażu diagnostycznego z wykorzystaniem: autorskiego kwestionariusza ankietowego, standaryzowanego Inwentarza Zachowań Zdrowotnych (IZZ) wg Juczyńskiego oraz standaryzowanej Wielowymiarowej Skali Umiejscowienia Kontroli Zdrowia (MHLC) wersja B. Wallston, B.S. Wallston, R. Devellis, w polskiej adaptacji Juczyńskiego. Uzyskano zgodę komisji bioetycznej Uniwersytetu Medycznego w Białymstoku numer R-I-002-434-2014 oraz pisemne zgody.

**Wyniki.** Osoby wierzące i praktykujące wykazywały się nieco lepszymi wskaźnikami zdrowotnymi w zakresie prawidłowych nawyków żywieniowych (p = 0,0134), zachowań profilaktycznych (p = 0,0015), nastawienia psychicznego (p = 0,0036). Osoby deklarujące się jako niewierzące i niepraktykujące przykładały większą wagę do wpływu wewnętrznej kontroli zdrowia na stan zdrowia (p = 0,0200). Wnioski. W grupie ankietowanych potwierdzających swoją religijność, odsetek osób palących spożywających alkohol był niższy niż w grupie osób niewierzących czy niezdeklarowanych. Osoby religijnie niezdeklarowane częściej oceniały swój poziom zachowań zdrowotnych na poziomie niskim. Osoby wierzące i praktykujące wykazywały się nieco lepszymi wskaźnikami zdrowotnymi w zakresie prawidłowych nawyków żywieniowych, zachowań profilaktycznych i nastawienia psychicznego. Osoby deklarujące się jako niewierzące i niepraktykujące przykładały większą wagę niż osoby wierzące i praktykujące do wpływu wewnętrznej kontroli zdrowia na stan zdrowia.

# INTRODUCTION

Over the centuries, medicine and religion were often interwoven (1, 2). Ancient societies perceived reality mostly in the religious dimension and added specific meanings to religious images using them to interpret the meaning of existing events. The magical rituals were to be used to remove illnesses and remedy misfortunes, which, consequently, would ensure health and prosperity. Shamans, and then priests in ancient civilizations, were the first "doctors" who used not only agents soothing physical pain, but also therapeutic treatments that gave psychological relief (1, 2).

Beliefs often influence the decision of both, the physician and the patient (3) and the religion serves many functions for health, such as: explicative and meaningcreating, normative and control, caring and charity, therapeutic – or healing (4).

In the followers of some religious systems, there is a relationship between the level of their religiosity and the state of their health, and its strength increases with age, sometimes with total or partial loss of health. It depends on the principles of religion, gender, marital status and the nature of the relationship, as well as the content of beliefs, individual personal characteristics, cultural and social criteria, environmental and genetic determinants (1, 4-6).

In the literature (2, 7-13) it is pointed out that an important factor affecting the quality of the relationship between the patient and health care workers seems to be knowledge about patient's religiosity and the possibility of occurrence of conflict between religious beliefs of the patient and medical recommendations based on the achievements of science.

#### AIM

The aim of the study was to assess the impact of religiosity on health-related behaviors (eating habits, preventive behaviors, positive psychological attitudes, health practices) and the dimensions of the location of health control: internal (the belief that control over my own health depends on myself), influence of others (belief that the state of their own health is the result of the impact of others, mainly medical personnel) and the impact of the case (the health condition depends on the case or other external factors).

# MATERIAL AND METHODS

The research covered a total of 790 people, including: 259 people aged 18-24 (group I), 189 people aged 25-49 (group II), 188 people aged 50-70 (group III), 154 people and age > 70 years (group IV). The patients were hospitalized for various reasons in 3 hospitals in Eastern Poland.

The study used the method of a diagnostic survey using the author's questionnaire, the standardized Inventory of Health Behaviors (IZZ) according to Juczyński and the standardized Multivariate Location of Health Control (MHLC) version B. Wallston, B.S. Wallston, R. Devellis, in the Polish adaptation of Juczyński.

The questionnaire developed for the purposes of the study consisted of questions regarding: age, gender, place of residence, education, financial situation, self-evaluation of religiosity, including: creed; declaration of regarding yourself as a believer and practitioner; motives of faith consistent with the respondents' beliefs; about the importance of religion in everyday life.

The standardized Inventory of Health Behaviors (IZZ) according to Juczyński is intended for the study of healthy and ill adults (14). It contains 24 statements describing various types of behaviors related to health (eating habits, preventive behaviors, positive mental attitude, health practices) (14). It allows to determine the general index of the severity of health behaviors and the severity of the four categories of these behaviors (14):

- proper nutrition taking into account mainly the type of food consumed,
- preventive behavior regarding compliance with health recommendations and obtaining information about health and disease,
- health practices daily habits regarding sleep and relaxation as well as physical activity,
- positive psychological attitude avoiding strong emotions, stress, depressing situations.

Internal compliance of the IZZ, based on Cronbach's alpha, is 0.85 for the entire Inventory, and for its four subscales it is within the range of 0.60 to 0.65. In the test-retest examination conducted among 30 people with an interval of six weeks, a correlation coefficient of 0.88 has been obtained (14).

Standardized Multidimensional Health Control Location Scale (MHLC) version B. Wallston, B.S. Wallston, R. Devellis, in the Polish adaptation of Juczyński is a self-report tool and finds application in health promotion programs and in prophylactic interventions. It is based on the assumption that the internal location of health control is conducive to health-related behaviors, i.e. physical activity, smoking and drinking, weight control, prevention of HIV infection, etc. It turns out, however, that dependencies are more complex and that other variables are also important, such as sense of self-efficiency or health evaluation (14).

The MHLC scale in the Polish version, as in the original one, contains 18 statements and capture the beliefs about generalized expectations in three dimensions of the location of health control, i.e. (14):

- internal (W) control over my own health depends on me,
- influence of others (I) own health is the result of the influence of others, especially medical personnel,
- case (P) the condition determines the case or other external factors.

The respondent must answer according to his or her convictions and express his attitude to the statements presented on a six-point scale: I strongly disagree (1 point) I strongly agree (6 points) (14).

The approval of the Bioethical Committee of Medical University in Bialystok, Poland no. R-I-002-434-2014 and written consent from all the subject has been given as well as the Dean of the Faculty of Health Sciences and the head of the General Hospital in Wysokie Mazowieckie, the University Hospital in Bialystok, and the St. Jadwiga's of the Queen Provincial Hospital No. 2 in Rzeszow and the Provincial Specialist Hospital in Biala Podlaska. The study has been conducted from November 2014 to November 2015.

# Statistical analysis

The statistical tests were used in order to assess whether the relationships observed in the sample are the result of more general regularity prevailing in the whole population or just an accidental result. Their result is the so-called test probability (p), whose low values indicate the statistical significance of the considered dependence.

In the analysis of the link between religiosity and selected aspects of health behaviors, selected methods of descriptive statistics and statistical inference were used. The selection of the applied statistical tests depended on the nature of the compared measures of both phenomena, for two nominal (text) features, the so-called contingency tables presenting the percentage distribution of the value of one of the variables relative to the other, and the significance of the relationship between the two variables was assessed using the chi-square independence test. The one-way analysis of variance (ANOVA) is a statistical method for comparing the average level of a numerical feature in several populations.

In this test, the null hypothesis is put, according to which in all compared groups the numerical feature under consideration has the same average level. On the basis of the test probability value p, determined upon the analysis of variance, this hypothesis can be rejected (when p is correspondingly low), which means the influence of the grouping factor on the level of the numerical feature. The test of variance analysis requires two assumptions: about the normality of the distribution of a numerical feature in each of the considered groups and the same level of variation (the so-called homogeneity of variance) of the numerical attribute in individual groups. It should be noted, however, that from many studies, the high resistance of ANOVA tests to the violation of these assumptions is apparent.

# RESULTS

790 people were subject to the survey. The vast majority of respondents (71.8%) were women, and the rest (28.2%) – men. The percentage distribution of individual age groups was similar, with a slightly higher percentage of the youngest (18-24 – 32.8%). The remaining results are illustrated in table 1.

Tab. 1. Respondents age

Age (years)	N	%
18-24	259	32.8
25-49	189	23.9
50-70	188	23.8
> 70	154	19.5

The majority of respondents (62.2%) were urban residents, and the remaining 37.8% – lived in villages.

Among the respondents, more than half (53%) had secondary education, every third bachelor, or master, and one in seven – vocational. The remaining results are illustrated in table 2. The missing data did not affect the value of statistical analyzes.

Tab. 2. Respondents education level

Education	N	%
vocational	111	14.1
secondary	419	53.0
bachelor	118	14.9
higher	127	16.1
no response	15	1.9

The vast majority of respondents defined their financial situation as good (42.6%) or average (41.7%). The percentage of people assessing their financial status high or very low was small. The remaining results are illustrated in table 3. The missing data did not affect the value of statistical analyzes.

Tab. 3. Respondents financial situation

Financial situation	N	%
very good	46	5.8
good	336	42.6
average	329	41.7
rather bad	31	3.9
bad	9	1.1
no response	39	4.9

As many as 92.1% of respondents declared themselves as Catholics. The second largest group were Orthodox (2.4%), and non-believers accounted for 2.6% of the discussed population. The remaining results are illustrated in table 4.

Creed	Ν	%
judaism	2	0.3
catholic	728	92.1
lutheranism	1	0.1
muslim	2	0.3
orthodox	19	2.4
jehova's witness	7	0.9
non-believer	21	2.6
i do not know	10	1.3

Tab. 4. Creed declared by respondents

Due to the fact that the main aim of the study is to examine the relationship between religiosity and health, first the study of the distribution of responses to questions related to religiosity was thoroughly examined. Then, based on the results contained in the question "Do you consider yourself a believer and practitioner?" were selected those questions that allowed the diversity of the surveyed population in terms of religiosity. Such a question could not, for example, be considered on the subject of a declared creed, as almost all of the respondents were Catholics.

As many as 3/4 respondents are people who declare themselves as believers and practitioners. Nevertheless, a group of tens of non-believers (or at least nonpractitioners) and an even larger group of "doubters", let us examine the impact of the answer to the health behaviours preferred by the respondents, which will be taken into consideration in the next sections of this study. The remaining results are illustrated in table 5.

Tab. 5. Respondents declaration regarding faith

Are you a believer and practitioner?	N	%
yes	610	77.2
no	48	6.1
hard to say	132	16.7

Respondents most often referred to as believers and those who follow the principles of faith (60.1%). Every fifth person considered him/herself to be deeply religious. Undecided, seeking, doubting and atheists were a small percentage of the analyzed group. The remaining results are illustrated in table 6.

It has been examined whether there was a connection between the declaration of faith and a healthy lifestyle.

It is worth remembering, however, that the surveyed people in the largest number confirmed the involved attitude to religious matters, and the percentage of people neutral to the matters of faith was small.

It also should be remembered that, both, the question of religiosity and selected health behaviors may be influenced by the same independent factors – such

## Tab. 6. Religiosity self-estimation of the respondents

<b>Religiosity self-estimation</b>	N	%
believer due to principles of her/his own creed	475	60.1
deep believer due to principles of her/his own creed	169	21.4
undecided, seeking, doubting	53	6.7
faith in the existence of absolute not connected with any religion	19	2.4
neutral, religion has no meaning for me	17	2.2
non-believer, not connected with religious tradition	10	1.3
non-believer, connected with religious tradition	8	1.0
hard to say	39	4.9

as the age or gender of the respondents, which may result in the appearance of apparent dependencies. However, this issue will be considered during multivariate analyzes, which will be included in the subsequent parts of the study.

The results at the level of the whole community will be presented here, without taking into account the impact of additional factors.

It was found that in the group of respondents confirming their religiosity, the percentage of smokers was lower than in the group of non-believers or undeclared. This dependence is statistically significant ( $p = 0.0000^{***}$ ). The remaining results are illustrated in table 7.

Tab. 7. Relations between	smoking and	declared r	eligiosity
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Creaking	Total				
Smoking yes no		no	hard to say	Total	
no	440 (72.1%)	21 (43.8%)	74 (56.1%)	535 (67.7%)	
used to	52 (8.5%)	8 (16.7%)	13 (9.8%)	73 (9.4%)	
sporadi- cally	59 (9.7%)	6 (12.5%)	18 (13.6%)	83 (10.5%)	
yes	59 (9.7%)	13 (27.1%)	27 (20.5%)	99 (12.5%)	
total	610 (77.2%)	48 (16.6%)	132 (16.7%)	790	

p - value of test probability calculated using chi-square test

In the case of use of alcohol also among believers, a larger percentage admitted to being nondrinkers. This relationship is statistically significant ( $p = 0.0353^{*}$ ). Non-believers or "doubters" more often consumed such alcohols as beer ( $p = 0.0000^{***}$ ) or wine ( $p = 0.0101^{*}$ ). The remaining results are illustrated in table 8.

Religiously undecided people more often assessed their level of health behaviors at low (46.75). This dependence is on the verge of statistical significance (p = 0.0822). The remaining results are illustrated in table 9.

Believers and practitioners showed slightly better health indicators in terms of proper eating habits ( $p = 0.0134^*$ ), prophylactic behaviors ( $p = 0.0015^{**}$ ),

Tab. 8. Dependencies between	drinking alcohol and	declared religiosity

Drinking clockel		Are you a believer and practitioner? ( $p = 0.0353^*$ )						
Drinking alcohol	У	es	r	no		to say	Total	
no	181 (	181 (29.6%)		6.7%)	27 (2	20.6%)	216 (27.3%)	
used to	22 (	22 (3.6%)		.2%)	7 (5	i.3%)	31 (3.9%)	
sporadically	340 (	340 (55.6%)		340 (55.6%) 28 (58.3%)		79 (6	60.3%)	447 (56.6%)
yes	68 (1	1.1%)	10 (20.8%)		18 (13.7%)		96 (12.2%)	
total	611 (	7.3%) 48 (6.1%		6.1%)	131 (16.6%)		790	
Kind of clocks!	У	yes		no har		to say	_	
Kind of alcohol	Ν	%	N	%	Ν	%	Р	
beer	142	23.3	18	37.5	56	42.4	0.0000***	
wine	128	21.0	19	39.6	27	20.5	0.0101*	
vodka	113	18.5	14	29.2	27	20.5	0.1916	

p - value of test probability calculated using chi-square test

Tab. 9. Dependencies between level of pro-health behaviors and declared religiosity

Level of pro-health behaviours	Are you a b	Total		
	yes	no	hard to say	Iotai
low	205 (34.5%)	19 (41.3%)	57 (46.7%)	281 (37.3%)
average	254 (33.7%)	15 (32.6%)	48 (39.3%)	307 (40.8%)
high	136 (22.9%)	12 (26.1%)	17 (13.9%)	165 (21.9%)
total	595 (79%)	46 (6%)	122 (15%)	753

p - value of test probability calculated using chi-square test

Tab. 10. Dependencies between pro-health behaviors indexes and declared religiosity

		Are you a believer and practitioner?								
IZZ		yes		no			hard to say			р
	$\overline{\chi}$	Ме	S	$\overline{\chi}$	Me	s	$\overline{\chi}$	Me	s	
proper nutritional habits	3.39	3.33	0.76	3.25	3.17	0.90	3.18	3.00	0.77	0.0134*
prophylaxis	3.39	3.33	0.75	3.10	3.17	0.89	3.18	3.17	0.72	0.0015**
positive mental attitude	3.50	3.50	0.71	3.19	3.33	0.94	3.35	3.33	0.67	0.0036**
healthyractise	3.21	3.17	0.70	3.13	3.17	0.74	3.14	3.17	0.68	0.5188
IZZ	80.9	80.0	14.3	76.0	77.0	17.9	77.1	77.0	13.3	0.0038**

p – value of test probability calculated using ANOVA

mental attitude ( $p = 0.0036^{**}$ ). The remaining results are illustrated in table 10.

The frame-whiskers chart (fig. 1) presents average values, an estimate of the average value in the entire population in the form of a 95% confidence interval and a typical range of values for each of the IZZ component components.

In order to understand the concept of the confidence interval, it is first of all necessary to realize that the average value of a certain numerical feature (growth, weight, incomes, efficiency measures) calculated from the data does not have to accurately reflect the average value for the entire target population. On the basis of the sample average, it is only possible, with some confidence, to give a range in which the average value for the entire population should be found. Typically, 95% confidence intervals are given for the average value. It should be noted that the spread of the confidence interval increases when a higher confidence level is established and the measurement is more dispersed



Fig. 1. Differentiation between the level of pro-health behaviours between religious respondents and other in the studied group, and decreases when the sample size increases.

A typical range of variation includes measurements that deviate from the average no more than the standard deviation ( $\overline{\chi} \pm s$ ). In this interval, for distributions close to normal, approximately 70% of measurements made in a given group should be included.

The graph (fig. 1) clearly shows the variation for the first three measures of the level of health behaviors between religious people and the other two groups. No influence of religion on the implementation of health practices.

People who declared themselves as non-believers and non-practitioners applied greater importance than the people from the other two groups to the impact of internal health control ( $p = 0.02^{**}$ ). The influence of others was most strongly emphasized by religious persons ( $p = 0.0352^{*}$ ). The differences were not as expressive and logical as in the case of the IZZ measure.

The remaining results are illustrated in table 11 and figure 2.

# DISCUSSION

The literature emphasizes that religiousity and concentration on spiritual values can affect not only mental health, but also physical health, exerting a positive influence on diseases such as cancer, hypertension and life expectancy (7-17).

Research conducted by Balboni et al. (18) in the group of people at advanced stage of cancer clearly showed that religious and spiritual factors play a positive role in their quality of life. Cancer patients who underwent radiotherapy were characterized by a better ability to cope with the disease when they referred to religious and spiritual beliefs.

This was confirmed also by Vallurupalli et al. (19) stating that spirituality (individual attitude to sacred and ethical values) and religiosity (relations to God occurring within institutional religion) were associated with a higher level of quality of life of patients.

Most of the respondents defined their health at the average and above the average level. Half of the respondents contacted the doctor only if they got sick. Older people showed higher level of health behaviors.

In the literature on the subject (7, 20), he presents the interesting results of a study of 100 oncological patients treated for lung cancer, their family members and 257 oncologists. All subjects had the task of arranging seven factors (recommendation of oncologist, faith in God, chances of success, side effects, recommenda-



Fig. 2. Dependencies between health control and declared religiosity

tion of the family doctor, recommendation from the spouse and recommendation of this form of therapy on the part of the patient's children) deciding on the initiation of chemotherapy, ordered from, in their opinion, the most important to the least important. Both, patients and their family members and physicians put the recommendations of an oncologist first, however, patients and their families – in the second place were the religious factor (faith in God) that the oncologists placed last (7, 20).

Danhauer et al. (21) showed that spirituality is a very important factor favoring the appearance of positive changes in people struggling with somatic diseases, including women with breast cancer.

Ai et al. (22) in turn stated that religious attitude was an important factor that promoted the appearance of positive posttraumatic changes in the group of patients after cardiac surgery.

Oxman et al. (23) performed a survival analysis of 232 older patients after an open-heart surgery and showed that significant risk factors for death within 6 months after surgery were: lack of belonging to social groups, hence lack of social support and lack of the feeling of strength and comfort flowing from the faith. Both factors were independently associated with the risk of death, and those who were three times more likely to be exposed to the risk of death.

Ogińska-Bulik (24) analyzed 90 patients with oncological, cardiac and chronic renal failure, including

Tab. 11. Dependencies between health control and declared religiosity

MHLC	Are you a believer and practitioner?									
	yes			yes			yes			р
	$\overline{\chi}$	Ме	S	$\overline{\chi}$	Ме	s	π	Me	s	
internal health control	24.3	25.0	6.1	26.3	27.5	6.4	23.2	23.0	6.5	0.0200*
influence of others	21.9	22.0	6.1	20.2	20.0	6.0	20.7	20.0	5.7	0.0352*
accident	21.0	21.0	5.6	20.0	21.0	5.0	20.2	21.0	5.3	0.2304

p - value of test probability calculated using ANOVA

55.5% of men and 44.5% of women. Spirituality was positively related to the occurrence of positive posttraumatic changes. The predictors of posttraumatic development in people struggling with chronic diseases were two factors of spirituality – harmony and ethical sensitivity. The gender of the respondents did not significantly affect the level of growth after the trauma, however, women obtained higher results in terms of spiritual changes and relationships with others. The age of the respondents and the type of the disease did not have a statistically significant level of posttraumatic development.

In the opinion of many authors (25-28), religious affiliation helps a lot in the terminal phase of the disease, especially when diagnosing cancer. Patients with a religious attitude often refer to moral values, and to a model of behavior that would enable them to achieve higher values and give a deeper meaning to their lives (59, 66, 168, 169).

Bjorck and Cohen (27) believe that religious approach to the stress can be a specific strategy, other than task-oriented or emotionally oriented strategies.

Klaassen et al. (29) suggest that religious ways of coping with stress can be treated as a complex process of confronting stressful situations, which should not be reduced to simple behavioral indicators (such as prayer) or defensive mechanisms (repression or denial), because it contains active and passive coping strategies that are focused on the problem, emotions, are intrapsychic and interpersonal.

A standardized IZZ questionnaire was used in the research, allowing to assess the level of health behaviors in four areas, such as: proper eating habits, preventive behaviors, positive mental attitude and health practices.

Matthews et al. examined 177 people and found that the higher the religiosity of the respondents, the lower the risk of depression and the faster recovery of those who suffer from it. Internal religiosity turned out to be significantly related to the greater probability of remission and the actually faster remission of depression (30).

From the results of Koenig et al. (11) which included 3,000 patients, it turned out that in people aged 18-39, religious involvement was closely related to the reduction of anxiety (state) and level of anxiety in life (traits), which it did not concern the oldest people (60-79 years).

The respondents were characterized by rather average level of health behaviors, while it was similar for all separate areas, but slightly higher for mental attitude, and the lowest for health practices. In currently

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examined two younger age groups there were less than 20% having a high level of health behaviors, in the group of 50-70 years of such people is more than a quarter, while in the group of 70-year-olds over one-third.

Kaczorowski (31) examined patients with advanced cancer and decided to check the theory if the lower the anxiety associated with the disease, the higher is the personal religiosity. The author found a positive correlation between anxiety – a condition revealed in an emergency situation and anxiety – a feature characteristic of a given individual, high religiosity.

McCullough et al. (32) as a result of a meta-analysis of 42 research programs, in which almost 126,000 people participated, showed that highly religious people had a 29% higher probability of survival compared to less religious persons.

In the conducted study, religiously undecided people more often assessed their level of health behaviors at low, and believers and practitioners showed slightly better health indicators in terms of proper eating habits, preventive behaviors and mental attitude.

Clark et al. (33), however, analyzed religiosity in the context of longevity in 993 participants in the 70-year study. They also considered key social and behavioral variables of physical health, psychological well-being, socio-economic status, the need for social assistance and preferred health behaviors. The obtained results allowed to state that women who were more religious (around 40 years of age) showed a lower risk of premature death than those less religious. They also showed better health behaviors, more positive feelings about their future and were happier than their less religious coevals.

# CONCLUSIONS

- In the group of respondents confirming their religiosity, the percentage of smokers who consumed alcohol was lower than in the group of non-believers or undeclared.
- Religiously undecided people more often assessed their level of health behaviors at low.
- Believers and practitioners showed slightly better health indicators in terms of proper eating habits, preventive behaviors and mental attitude.
- 4. People who declared themselves as non-believers and non-practitioners paid more attention than believers and practitioners to the influence of internal health control on their health state.

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