

# ASSOCIATION BETWEEN LOCUS OF CONTROL OF HEALTH, RELIGIOUS ATTITUDE, AND SPIRITUALITY IN OLDER ADULTS IN PSYCHIATRIC HOSPITALS OF JEDDAH

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## Abstract

**Background:** A common perception in Muslim society is there that, in old age people see God (Allah) to close as well as they spend most of their time in worshipping and other religious as well spiritual based activities. While role of health and locus of health control is also playing such religious and spiritual practices.

**Aim of Study:** To check the correlation between health locus of control, religious attitude, and spirituality among older Saudi Arabians adults

**Method:** A cross-sectional descriptive research design was used on the 109 older adults, who were selected through online questionnaire by using convenient purposive sampling technique. As we used three questionnaire such as health locus of control, religious attitude scale and spirituality index.

**Findings & Results:** It was found that older adults have a high level of religious attitude as 71.2% and spirituality as 80.1%. The correlation of the sub-domain of health locus of control in its powerful others dimension has a low but statistically significant correlation with religious attitude ( $r = .278, p < .01$ ) and does not have a correlation with spirituality, thus, a level high religious attitude makes it more likely that older adults have a locus of control over health powerful others at a high level (odds = 3.11, 2.21 – 7.22).

**Conclusion:** There is higher level of religious attitude in Saudi older Adults. While health locus of control has a significant impact in practicing religious activities as well as showing spirituality.

**Keywords:** Adults, Attitude, Older, Religiosity, Spirituality, Locus of Control, Health, Jeddah.

## Introduction

Older age refers to those people who live after 55-60 years of old. In Kingdom of Saudi Arabia (KSA) is among those countries where adult population ratio is growing up. As KSA has ranked 26<sup>th</sup> out of 191 countries where elder population ratio is going higher. (Khoja et al., 2018) In 2019 the population of older adults in

KSA was 2.4% of the entire Saudi population. (Alhabib et al., 2022) While the recent statistics of 2022 showed that the number of older adults is rising from 1 billion in 2019 towards approximately 20 to 22 billion by the end of 2050. By this it could be estimated as nearly 18.5% population will be consisting of older adults in 2050. (Karlin, Weil & Felmban, 2016)

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Apart from numbers of older adults in KSA, the other concerning issue is related to the mental abilities with exposure to life span experiences lead towards another phase of life which refers to the spirituality, religious interest, and religiosity. However, parallel to this favorable change, Saudis, particularly Older Adults, also increased the prevalence of non-communicable diseases (NCDs) (Sinha, 2021), which are associated with unhealthy lifestyles and old age. The quality of life of the older adults is usually poor when dealing with the complex treatments of NCDs (Kretchy, Owusu-Daaku & Danquah, 2014) and, in addition, there are also collateral damages, including the overload of family members who act as primary caregivers (Dhar, Chaturvedi, & Nandan, 2011) and the economic repercussions. In addition, it is necessary to consider that a large percentage of the Saudi Arabians population is treated in health centers and public hospitals, which are subsidized. Thus, the sustainability of the Saudi Arabians health system in the future is threatened. (Al-Eisa, & Al-Sobayel, 2012).

In the Ottawa Charter promulgated by the World Health Organization, it highlights the importance of strengthening primary health care and, in particular, one of the proposed axes is the development of personal skills for a healthy lifestyle (Thompson, Watson & Tilford, 2018). Since then there has been a growing interest and focus on health education for people to develop skills for health empowerment, which is necessary for Older Adults. (Moore, 2016)

Health empowerment refers to the skills that allow the person to become responsible for making the decisions for the daily control of their health problems (MacLeod, Satariano & Ragland, 2014). Developing such empowerment in the older adults is a difficult task due to all the variables that influence it and because in the health care of the older adults there are various professionals who need to intervene. therefore, a multi and interdisciplinary work is necessary in which the health psychologist can participate with tasks that are specific to her profile (Thompson, Watson & Tilford, 2018). One of them is precisely psychoeducation in the psychological factors

related to health empowerment, which is feasible for the Older Adults who go to primary health care institutions, who usually report a mild dependency and moderate autonomy, in such a way that so that it is feasible to intervene in older adults groups with these characteristics. (Moore, 2016)

From the perspective of health psychology, various variables that influence the achievement of empowerment in health are studied. One of them is control beliefs, whose evidence in the scientific literature indicates them as a factor that has an impact on changes in health, and the need to continue investigating more factors of intra-individual variability has been pointed out (Vanlede, Little, & Card, 2006).

One of the most studied psychological variables regarding health empowerment is the health locus of control (locus of control), which refers to the perceptions of individuals regarding what they consider controls their health (Batool et al., 2022), which can be of three types: 1) internal (internal health locus of control), which refers to the perceived control and the individual's tendency to believe that their health outcomes are mainly due to their own behavior; 2) chance (random health locus of control), in which the individual considers that they have no control over what happens to them and something else, or fortuitous events, are responsible and 3) powerful others (health locus of control powerful others), in which individuals attribute the results to them and control of your health to other people, such as family members or health professionals. Thus, the internal health locus of control implies internality and the random health locus of control and health locus of control powerful others externality.

The locus of control is used to predict and/or explain various health behaviors according to various health conditions, particularly it is a useful variable to assess patients' perceived level of control over ncds. For example, people with a high level of internal health locus of control are more likely to adhere to health-promoting lifestyle changes, disease prevention behaviors (Moreira et al., 2016) and have better coping with life (Clark et al., 2017); therefore, they have higher survival rates. In contrast, people with a high level of random health locus of control are more likely to

be passive in various situations related to their health and report psychological distress (Shahbal et al., 2022). Health locus of control powerful others is associated with trust in health professionals; however, it is important to point out that ncds allow treatments related to lifestyle changes, in which the patient has greater responsibility for controlling their disease, so a high level of health locus of control powerful others could not be favorable and generate behaviors passive with regard to self-care of health. (Clark et al., 2017; Shahbal et al., 2022; Oraibi et al., 2022)

The scientific literature is consistent about the favorable role of the internal health locus of control and the unfavorable role of the random health locus of control and the health locus of control powerful others regarding self-care of health in older adults. In fact, the favorable effect of the internal health locus of control may not only be on people's health, but it can also financially help health systems, since, as mentioned, their sustainability is compromised and there are indications that people with a internal health locus of control are less dependent on medical care, both preventive and interventional, a product, of course, of assuming to a large extent that they are responsible for their health. (Abo-Eata et al., 2022; Mirghafourvand et al., 2020)

Thus, it is necessary to identify variables that can promote the externality and address them appropriately. In this sense, the religious attitude, when it is positive, and spirituality are different variables, which could be related to the externality that defines the random health locus of control and the health locus of control powerful others. The foregoing is relevant considering that in Saudi Arabia 90% of people report professing a religion (Mahsoon et al., 2020).

Religion is understood as the system of beliefs, spiritual practices, or both, organized around the recognition of an all-powerful deity or deities capable and willing to alter the natural course of events and that includes behaviors such as prayers, meditation and participation in rituals. (Moshki et al., 2021).

Attitude, which can be positive or negative, is feasible for assessing people's disposition toward religion regardless of what it is, for four reasons: 1) because it is a deep-seated, relatively stable, and long-lasting covert predisposition, in contrast to more volatile and superficial behaviors and opinions; 2) it provides a purer measure of religion than belief or practice, ie the attitudinal dimension of religion is less likely to be distorted by personal and contextual factors; 3) at the operational level, a range of sophisticated and well-established techniques have been developed to assess attitudes; 4) the attitudinal dimension of religion can be accessed through instruments that can function in a relatively stable manner over a wide age range (Joseph, Alex Linley & Maltby, 2006).

On the other hand, spirituality is defined based on three components: 1) it is related to the belief in the existence of a superior being and the meaning of the universe; 2) with the personal meaning of the meaning of life and its purpose and; 3) it is the result of an internal state, based on personal experiences, associated with the dimension of consciousness and transcendence of life and not necessarily linked to the social or to any particular belief (Timmins & Martin, 2019; Fiori et al., 2006)

So, considering that the locus of control is associated with health behavior and that the religious attitude and spirituality are conceptually and phenomenologically different. The objective of this study was to assess the relationship of the locus of control with religious attitude and spirituality in Saudi Arabians elderly peoples.

## Materials and Methods

**Study Design:** The type of study is descriptive-correlational cross-sectional with quantitative in nature.

**Sampling & Population:** Study was conducted in the Jeddah Region. A sample of 109 Older Adults participated from four Saudi Arabians government social assistance centers attached to the support program for Older Adults that the centers provide, which were selected through convenient not-probability sampling method. Inclusion criteria

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were being older than 60 years, literate, and not diagnosed with a serious medical and/or psychiatric illness; Those who did not sign the informed consent or did not answer all the items of the psychometric instruments were excluded.

## Instruments

**1. Sociodemographic questionnaire:** it was specifically designed to obtain information regarding age, sex, marital status and number of children. In addition, it was used to collect information on the religion that is professed, religious practice, that is, the frequency (daily, weekly, monthly or occasional) with which religious activities are carried out and, finally, to know the perception about the health status based on the categories: very good, good, fair or poor.

**2. Locus of Control in Health Scale:** It validated scale developed by Wallston et al. (1976) with 18 items with five response options ranging from "totally disagree" to "totally agree" with scores between one and five. The scale has three factors: 1) internal health locus of control, 2) random health locus of control, and 3) powerful other health locus of control. Each of the three factors is made up of six items, so they can reach scores between six and 30; the higher the score, the greater the presence of the type of scl. The mentioned validation was with Saudi Arabians older adults in which a Cronbach's alpha of 0.77 for the internal health locus of control is reported, for the random health locus of control 0.75 and 0.67 for the health locus of control powerful others.

**3. Spirituality Index:** it is a Likert-type scale validated in among various older adults. It is made up of six items with four response options ranging from "Never or almost never" to "All the time" with scores from one to four, so a score between six and twenty-four can be obtained; the higher the score, the greater the person's spirituality. In said Saudi Arabians validation, a Cronbach's alpha of .94 is reported. (Muse-Burke, 2004)

**4. Religious Attitude Scale:** A 17 items based scale with five response options ranging from "Totally agree" to "Totally disagree" with scores between one and five. Thus, values between 17 and 85 can be obtained; a higher score indicates a more favorable attitude toward religion. The

creators of the scale report a Cronbach's alpha of .94 based on its application in 1,982 Saudi Arabians. (Ebrahimi, 2008).

**Study Process:** Study was initiated in the Jeddah region. Data was collected through online google form link. As in starting page of the link, inform consent were signed/agreed by the participants. The data was collected between September and November 2022.

**Statistical analysis:** Statistical analysis was performed in two phases. In the first, descriptive statistics were obtained, such as means, standard deviations, frequencies and percentages of sociodemographic variables and study variables, as appropriate. In the second phase, based on inferential statistics to evaluate the relationship between the locus of control with religious attitude and spirituality, two analyzes were performed: a Pearson correlation ( $p = 0.05$ ) and the odds ratio (CI = 95%). To assess the reliability of the instruments used, their Cronbach's alpha was calculated. Statistical analysis used the IBM SPSS Statistics software package, version 28.

**Ethical considerations :** Before the conduction of the study, a brief synopsis file was sent to the regional ethical review board of Jeddah and with permission and approval this study was conducted.

## Results

A sample of 109 participated with a mean age of  $69.89 \pm 6.85$  with a range between 60 and 90 years. Regarding gender, 21 women (19.26%) and 88 men (80.74%). Regarding marital status, 3 (2.75 %) reported being single, 63 (57.79%) married, 5 (4.58%) divorced, and 38 (34.7=86%) widowed. The mean number of children was  $5.11 \pm 3.11$ . Regarding religion, 106 (97.25%) reported being Muslims and 3 (2.75%) with other religions. Finally, 16 (14.67%) perceived their health status as "Very good", 33 (30.27%) "Good", 58 (53.21%) "Fair" and 2 (1.83%) "Bad".

The locus of control in health scale obtained the following Cronbach's alphas in each factor: internal health locus of control  $\alpha = .711$ ; random health locus of control  $\alpha = .721$ ; health locus of

control powerful others  $\alpha = .702$ . Regarding the religious attitude scale, he obtained  $\alpha = .791$  and the spirituality index, he obtained  $\alpha = .821$ .

It stands out that 71.2% and 80.1% of the Older Adults have a high level of religious attitude and

spirituality, respectively. Table 1 shows the cut-off points to assign the low or high level to each of the study variables, for which the mean is taken as a reference.

Table 1

Descriptive statistics of the locus of control, religious attitude and spirituality in AM

<i>Variables</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean (SD)</i>
internal health locus of control	10	30	23.31 (4.94)
random health locus of control	6	30	16.50 (6.07)
health locus of control powerful others	8	30	23.38 (5.97)
Religious Attitude	41	85	76.98 (8.84)
Spirituality	6	24	21.74 (3.94)

All three types of locus of control correlated positively with religious attitude, while only the

random health locus of control correlated with spirituality ( [Table 2](#) ).

Table 2

Bivariate correlations between the study variables

	1	2	3	4	5	6	7	8	9	10	11	12
Age	-	.21*	.34**	0.06	-.22*	.61	.02	.21	.21	.16	.16	.16
Gender		.19	.11	.12	-.09	-.23*	-.02	.13	.17	-.07	-.08	-.14
marital status			.24*	-.19	-.17	-.07	.07	.06	-.07	-.15	-.13	-.15
number of children				-.16	-.17	-.16	.31**	.07	.88	.002	.22*	.14
Religion						-.07	-.15	-.21	.06	.23*	-.92	0-.04
religious practice							-.08	-.33**	-.53***	-.08	-.26*	-.23*

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health condition								.22	-.09	.05	.21*	.21
Spirituality									.411***	.81	.31*	.12
Religious Attitude										.21*	.23*	.28**
internal health locus of control											.33**	.61***
random health locus of control												.54***
health locus of control powerful others												-

Note. \* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$ .

Table 3 shows that religious attitude and spirituality are not related to the probability of having a low or high internal health locus of control.

Table 3

Condition of spirituality and religious attitude in the internal health locus of control

Variable	health locus of control powerful others low		health locus of control powerful others high		odds	CI 95%
	n	%	n	%		
Religious Attitude						
Low	21	19.82	17	15.01	3.11	1.11-4.11
High	32	28.66	39	39.24		
Spirituality						
Low	19	19.88	13	13.91	2.01	0.82-4.89
High	34	36.41	43	42.16		

Table 4 shows that religious attitude and spirituality are not related to the probability of having a low or high random health locus of control.

Table 4

Condition of spirituality and religious attitude in the random health locus of control

Variable	health locus of control powerful others low		health locus of control powerful others high		odds	CI 95%
	n	%	n	%		
Religious Attitude						

Low	22	20.82	16	17.01	2.01	0.87-5.01
High	30	30.66	41	41.24		
Spirituality						
Low	17	21.88	15	15.91	1.42	0.59-3.36
High	35	38.41	42	44.16		

Table 5 shows that having a high level of religious attitude makes Older Adults more likely to have an health locus of control powerful others.

Table 5

Condition of spirituality and religious attitude in the health locus of control powerful others

Variable	health locus of control powerful others low		health locus of control powerful others high		odds	CI 95%
	n	%	n	%		
Religious Attitude						
Low	25	24.88	14	12.33	3.11	2.11-7.22
High	29	30.01	42	40.11		
Spirituality						
Low	19	18.88	13	12.01	2.01	0.91-3.95
High	34	33.41	43	39.11		

## Discussion

In accordance with the objective of the present study, low but statistically significant correlations were identified between the three types of locus of control (internal health locus of control, random health locus of control and health locus of control powerful others) and religious attitude. Regarding spirituality, it only had a low but statistically significant correlation with the random health locus of control.

The greater probability of having an health locus of control powerful others is highlighted when one has a religious attitude at a high level. Thus, the correlation between religious practice and attitude identified in this study and the correlation of both

with the random health locus of control and health locus of control powerful others coincides with a similar study in which it is reported that religious practice is related to a greater passive spiritual locus of control (Clark et al., 2017) In this case the passive spiritual locus of control is like the random health locus of control and the health locus of control powerful others because it refers to the fact that health outcomes depend on external factors (externality). Thus, the results of this study, like those of the studies indicated, go in the same direction as in a study that indicates that religiosity and locus of control generate a combined effect on the perception of health (Timmins & Martin, 2019; Fiori et al., 2006).

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In the scientific literature, the internal health locus of control has been significantly associated with the perception of a good state of health and the random health locus of control and health locus of control powerful others with a poor state of health (Abo-Eata et al., 2022; Mirghafourvand et al., 2020); however, in this study the perception of health status is not associated with the Internal health locus of control, and it is significantly associated with the random health locus of control and the health locus of control powerful others. The foregoing shows that the Saudi Arabians Older Adults could attribute the state of their health to external factors.

In another aspect, the study found that a high level of religious attitude makes health locus of control powerful others more likely, a result similar to that of a study where a regression analysis showed that random health locus of control and religiosity (assessed in terms of attendance at religious activities) they were positive and significant predictors of the so-called Locus of Control of religious health (Bhugra & Osbourne, 2004), that is, in which the attribution of the results of people's health is to the figure of God. Thus, there are indications that it could be advisable for health professionals in their professional practice to take into account the factors that promote externality and that could generate passivity in the health care of the older adults.

On the other hand, only the random health locus of control positively correlated with the number of children, while in an observational study conducted over a six-year period with parents, a proportion of them reported an internal health locus of control (Koenig Al Zaben & Khalifa, 2012). The previous difference could be explained by sociocultural factors that make the care and well-being of the children by the parents be attributed either to external or internal factors and therefore it is important to investigate how this can affect their health.

Regarding spirituality, this study found a relationship with the random health locus of control, which was expected because, like religion, it can refer to symbols or external factors, for example, as indicated in its definition, spirituality entails the belief in the existence of a superior

being. Thus, this result is in the same direction as that found in a study with people with NCDs, where spirituality was favorably associated with coping with the disease, particularly reducing uncertainty. It should be noted that, although in this case the random health locus of control is related to the externality, it is something that can be convenient when there is no certainty regarding a health situation and, furthermore, the state of health necessarily depends to a greater extent on the behavior of the health professional, the availability of procedures for the care of a health problem or even socioeconomic factors. (Sinha, 2021; Kretchy, Owusu-Daaku & Danquah, 2014)

However, in this study, a high level of spirituality does not make it more likely to have any type of locus of control, although it has a positive and small correlation with the random health locus of control, so it is necessary to continue investigating whether it can be a useful and limited resource for emotional coping. Of health situations. For example, in a study in cancer survivors, spiritual locus of control, that is, a type of locus of control in which people link their personal spiritual beliefs to health outcomes, was significantly associated with life (Hodges & Winstanley, 2012). In another similar study, in people recovering from an intestinal stoma, spirituality was associated with their well-being and favored their resilience regarding self-care and rehabilitation (Moreira et al., 2016)

It has been pointed out that spirituality is of paramount importance for older adults and therefore it would be beneficial for the health professional to be aware of the spiritual needs of older adults and the role that they could have in a specific health situation. (Timmins & Martin, 2019)

On the other hand, it has been pointed out that few studies related to the locus of control include practical and differentiated definitions of both spirituality and religion that help to understand both and show their relationship with the locus of control (Fiori et al., 2006), thus, in this study, spirituality and religion were conceptually differentiated and were also evaluated differently; the data obtained support that they do not show the same relationship with respect to the

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locus of control, for which data are provided to the scientific literature that contribute to the understanding of spirituality and religion and their effects with respect to the locus of control. (Batoool et al., 2022).

In this study, the levels of internal health locus of control, random health locus of control and health locus of control powerful others were similar to those of other populations (Gaber & Abdel-Latif, 2012), so it would now be relevant to carry out experimental research to modify the locus of control to increase the empowerment of the health of the patients. A.m.

The limitations of this study lie in the non-probabilistic sample and its homogeneity, since the older adults are users of social assistance centers and, therefore, of low economic income, so in future research the sample could be diversified to assess whether the effect it is maintained in populations with different social strata. Another limitation is that the sample was made up predominantly of women, so that a heterogeneous sample in terms of sex, in future studies, could allow us to compare whether the study variables (locus of control, religious attitude and spirituality) are manifested in the same way in women and men. Mens.

## Conclusions

Random health locus of controls and health locus of control powerful others are associated with less desirable health outcomes over time (Batoool et al., 2022; Debnam et al., 2012). Thus, the results of this research are relevant since they show that a high-level religious attitude makes a higher level of an health locus of control powerful others more likely, which would imply that the older adults could attribute their health results to the actions of their relatives and professionals. Of the health.

The above would not favor the empowerment of the health of older adults who suffer from ncds. Therefore, it is necessary that at the level of primary health care the role of psychological aspects be considered through interventions in which the health psychologist can help promote

self-care of health and well-being of the older adults (Zammar et al., 2022; Batoool et al., 2022; Amin et al., 2022, Shahbal et al., 2022).

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## Conflicts of Interest:

The authors of this article declare that they have no conflict of interest.

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