Spirituality and religiosity in patients with systemic arterial hypertension

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Abstract

Systemic arterial hypertension is a major risk factor for complications such as acute myocardial infarction, cerebrovascular accident, and chronic kidney disease, which results in an important public health problem in Brazil, generating high medical and socioeconomic costs due to such complications. Systemic arterial hypertension associated with aspects such as spirituality and religiosity has been the subject of several studies. Thus, a descriptive, exploratory, cross-sectional study was conducted in order to assess the spirituality and religiosity of 65 hypertensive patients of a Service Center for Chronic Diseases. The domains "forgiveness" and "self-assessment" received better scores, with an average of 1.42 and 1.46, respectively. Whereas the "organizational religiosity" domain resulted in a higher average among respondents (3.00). Spirituality and religiosity of hypertensive patients are important dimensions that must be considered in developing a holistic treatment plan.
Keywords: Spirituality. Religion. Hypertension.

Resumo

Espiritualidade e religiosidade em pacientes com hipertensão arterial sistêmica

Hipertensão arterial sistêmica é o principal fator de risco para complicações como infarto agudo do miocárdio, acidente vascular cerebral e doença renal crônica, resultando em relevante problema de saúde pública no Brasil e gerando custos médicos e socioeconômicos elevados em decorrência de tais complicações. A hipertensão arterial sistêmica associada a aspectos como espiritualidade e religiosidade tem sido tema de vários estudos. Assim, realizou-se pesquisa descritiva, exploratória, de delineamento transversal, com o objetivo de avaliar a espiritualidade e a religiosidade de 65 pacientes hipertensos atendidos em centro de atendimento a doenças crônicas. Os domínios "perdão" e "autoavaliação" receberam melhor pontuação, apresentando média de 1,42 e 1,46, respectivamente. Já o domínio "religiosidade organizacional" resultou em maior média entre os entrevistados (3,00). A espiritualidade e a religiosidade de hipertensos são importantes dimensões que devem ser consideradas na elaboração de projeto terapêutico holístico.
Palavras-chave: Espiritualidade. Religião. Hipertensão.

Resumen

Espiritualidad y religiosidad en pacientes con hipertensión arterial sistémica

La hipertensión arterial sistémica es el principal factor de riesgo de complicaciones como infarto agudo de miocardio, accidente cerebrovascular y enfermedad renal crónica, que se traduce en un importante problema de salud pública en Brasil, lo que genera altos costos médicos y socioeconómicos debido a tales complicaciones. La hipertensión asociada con aspectos tales como la espiritualidad y la religiosidad ha sido objeto de diversos estudios. Por lo tanto, se realizó un estudio exploratorio, descriptivo, de corte transversal, con el objetivo de evaluar la espiritualidad y la religiosidad en 65 pacientes hipertensos de un Centro de Servicio de Enfermedades Crónicas. Los dominios "perdón" y "auto-evaluación" recibieron mejor puntuación, con una media de 1,42 y 1,46, respectivamente. Por otra parte, "religiosidad organizacional" fue el dominio con el promedio más alto entre los encuestados (3.00). La espiritualidad y la religiosidad de los pacientes hipertensos son dimensiones importantes que deben ser consideradas en el desarrollo de un plan de tratamiento holístico.
Palabras clave: Espiritualidad. Religión. Hipertensión.

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Research articles

Systemic arterial hypertension (SAH) is a multifactorial clinical condition characterized by sustained high blood pressure (BP) levels, having as clinical criteria, in individuals over 18 years of age, blood pressure levels equal or higher than 140 mmHg × 90 mmHg. It is often associated with functional and/or structural disorders in target organs (heart, brain, kidneys and blood vessels) and metabolic disorders, thus, with increased risk of fatal and non-fatal cardiovascular events [1].

SAH is the most frequent condition among cardiovascular diseases. It is also the main risk factor for chronic kidney disease, in addition to the most common complications, such as cerebrovascular accident and acute myocardial infarction [2]. It is a controllable chronic disease and therefore it must be treated in order to prevent complications. Most patients can reduce their blood pressure by means of non-pharmacological treatment, *i.e.*, general re-education measures, also known as lifestyle changes [1,3].

Although, primary SAH-related causes have not been fully understood, they have a significant impact on public health. Its origin has multiple factors and causes, having relations with genetic, hypertensinogenic (obesity, insulin resistance, alcohol intake) factors and influence over intermediate phenotypes (sodium intake, vascular reactivity and heart contractility). Knowing all involved factors is crucial for a preventive and therapeutic plan [4].

Due to its potential long-term worsening of conditions, SAH causes significant transformations in the life of people, either in the psychological, family, social or economic scope. These transformations reinforce the thesis that aspects related to the disease cannot be analysed independently from other social and cultural dimensions, which give sense to these experiences [5].

In this context, Lucchetti *et al* [4] state that the frequency of produced scientific studies focused on the relationship between hypertension and religious and spiritual aspects has increased in recent years [4,6]. Religiousness and spirituality are fields of subjective elaboration in which most Latin-American people – and, mainly Brazilian people – build the meaning of their lives in a symbolic manner and seek motivation to overcome existential crisis arising from the disease and other life circumstances [7].

The definitions of religiousness and spirituality are not a consensus in the literature. Although there is a juxtaposition between spirituality and religiousness, the latter is different for the clear suggestion of a specific adoration/doctrinal system shared with others [8]. The religiousness, spirituality and personal beliefs of patients need to be inserted in the understanding of the healthcare professional's clinical practice in order to establish a holistic and integrative treatment [9].

Thus, a study was conducted, which aimed at evaluating the spirituality/religiousness of SAH patients, registered at a centro de atendimento a doenças crônicas (healthcare centre for chronic diseases) (Cadoc) located in the southern region of the state of Minas Gerais, Brazil.

Method

This is a descriptive, exploratory and cross-sectional study. The sample had 65 SAH patients, which are treated at Cadoc of the Municipal Health Council of Alfenas, a municipality in the state of Minas Gerais, Brazil. Only patients who were diagnosed with diabetes mellitus and psychiatric disorders were excluded from the study. Data collection was carried out between May and September 2015 by means of semi-structured interview.

Cadoc, the secondary healthcare service, started its activities in 2014, in the city centre. SAH patients from primary healthcare units of the municipality are sent to this service, where a multidisciplinary team provides healthcare and promotes self-care.

After approval by the research ethics committee of the institution, two instruments were applied: a) a semi-structured survey, containing socio-demographic, religious and life habit variables; and b) brief multidimensional measure of religiousness/spirituality. This measure is a transcultural adaptation of the *brief multidimensional measure of religiousness/spirituality* to the Brazilian reality, conducted by Miarelli [11] as a master's degree dissertation in bioethics presented at the University of Sapucaí Valley (Universidade do Vale do Sapucaí), in Pouso Alegre (Minas Gerais), and validated by Curcio [12] as a master's degree dissertation in Brazilian health presented at the spirituality and health research centre of the Federal University of Juiz de Fora (Universidade Federal de Juiz de Fora - UFJF) in Minas Gerais.

The measure – originally proposed by Idler *et al* [13] and developed as a resource that could provide an extensive list of questions related to religiousness and spirituality, relating them to

health - has been used in many studies worldwide and was validated for application in different populations, including teenagers from the US and Ireland, and US undergraduate and postgraduate students [12]. The validation of the original version was made in 1998 with a nationally representative sample from the US population, by means of the 1998 General Social Survey (GSS) [11], as informed by Miarelli.

The measure is organized by domains, identified by sections describing their relationship with health: A) daily spiritual experiences; B) values/beliefs; C) forgiveness; D) private religious practices; E) religious and spiritual resilience; F) religious support; G) religious/spiritual history; H) commitment; I) organizational religiousness; J) religious preferences; and K) global self-assessment [11]. The response options are arranged in Likert scale, ranging from 1 to 8, 1 to 6 and 1 to 4. The scores of each dimension is specific, and the lower the score, the higher the degree of the dimension in question, *i.e.*, the level of spirituality and religiousness.

Results

Regarding the 65 respondents, 69.2% of them are women, 56.9% are senior citizens, over 60 years of age or older; and 60% of respondents are married. There was a predominant number of hypertensive patients with household income equal or lower than two minimum wages (86.2%) and 49.2% respondents are pensioners, as per Table 1.

Amongst the respondents, 90.7% of them live with their families. A total of 49.5% live with their spouses and 41.2% respondents live with their children. The borough of Aparecida, where Posto de Saúde da Família (Caensa Family Healthcare Centre) (PSF) is located, is the centre with the highest number of patients who frequent Cadoc (32.3%), and one should consider its location near Cadoc and that this borough has a predominantly elderly population. Other boroughs often mentioned in the study were Recreio Vale do Sol (21.5%), Pinheirinho (12.3%), Nova América (9.2%), Vila Betânia (6.2%), City Centre (6.2%) and Boa Esperança (6,2%).

As for religion, there was a predominance of patients who declared themselves as Christians (55.4%, n = 36), followed by spiritualists (21.5%, n = 14), Catholics (15.4%, n = 10), and Jehovah witnesses (6.2%, n = 4), and 1.5% respondents (n = 1) did not answer this question.

Table 1. Socio-demographic data of hypertensive patients of the Healthcare Centre for Chronic Diseases (Alfenas/MG, 2015)

Variable		n	%
Sex	Female	45	69.2
	Male	20	30.8
Age group	20-29 years	3	4.6
	30-39 years	1	1.5
	40-49 years	5	7.7
	50-59 years	19	29.3
	60-69 years	25	38.5
	70-79 years	11	16.9
	> 80 years	1	1.5
Marital status	Married	39	60
	Single	10	15.4
	Widowed	10	15.4
	Divorced/separated	6	9.2
Household income	Equal or lower than 2 SM*	56	86.2
	Higher than 2 SM	9	13.8
Current professional status	Pensioner	32	49.2
	Employed	11	16.9
	Unemployed	5	7.7
	Sick leave	4	6.2
	Student	2	3.1
	Others	11	16.9

**Minimum wages. In November 2015, the minimum wage in Brazil was equivalent to BRL 788.00 (USD 202.72).*

As for the SAH diagnosis, 43.2% (n = 28) respondents have been living with the disease for up to 39 years, with a mean of 15 years. Regarding the treatment, 100% patients had pharmacological treatment, and 1.5% (n =1) respondents have pharmacological and non-pharmacological treatment. In addition to SAH, 76.9% (n = 50) respondents have another chronic disease and 16.9% (n = 11) have been hospitalized in the last twelve months; a total of 4.6% (n = 3) of them due to a hypertensive crisis. In regard to all respondents, 70.8% (n = 46) had already experienced some significant health-related event in their lifetime. These patients seldom indulge in leisure activities: 63.1% (n = 41) denied having any kind of leisure activity; and out of 36.9% (n = 24) respondents who stated their leisure habits, only 12.3% (n = 8) engage in leisure activities twice a week. Table 2 shows the score according to the domains of the brief multidimensional measure of religiousness/spirituality.

In domain G, "religious and spiritual history", 80% respondents stated to have had a life-changing religious/spiritual experience and 100% reported to have been rewarded for their faith. Only 10.8% respondents said they had lost a

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bit of their faith after being diagnosed with SAH. Amongst all domains, item C stands out, related to "forgiveness" and item K "global self-assessment", which presented the lowest means - 1.42 and 1.46, respectively - and, as per Table 2, the highest mean was observed in domain I, related to "organizational religiousness" (3.00).

Table 2. Score according to the domains of the brief multidimensional measure of religiousness/spirituality (Alfenas/MG, 2015)

Domains	Min.	Max.	Mean	Standard deviation
Daily spiritual experiences	1	4,8	2,08	0,891
Values/beliefs	1	2,5	1,63	0,521
Forgiveness	1	4	1,42	0,746
Private religious practices	1	6,8	2,64	1,655
Religious and spiritual resilience	1	3,7	2,43	0,831
Religious support	1	4	2,51	0,964
Commitment	1	10	2,51	2,127
Organizational religiousness	1	5,5	3,00	1,620
Religious preferences	1	8	1,78	1,905
Global self-assessment	1	3,5	1,46	0,650

Discussion

The results show that the study respondents were, in their majority, senior citizens aged 60 years or more and women. This may be due to the fact the more than half of the world's population is comprised by women and because woman are the ones who often seek health services [14]. In addition, this population has a higher prevalence of SAH in the country and large Brazilian regions [3].

The monthly household income of respondents does not exceed two minimum wages. This is a matter of concern, since the study conducted by Schmidt [15] shows that the morbidity and mortality rates derived from non-communicable or chronic diseases are higher in lower-income populations. In Brazil, it is estimated that half of senior citizens have a personal income equal or lower than one minimum wage, and a fourth of this income is spent with drugs. Moreover, when these senior citizens retire, their income is reduced, which means a change in their life standards. In this context, expenses with drugs and medical treatment can become burdensome for the elderly [16].

It was found a predominant number of married patients, many of them living with their spouses and children. This is a significant issue, because with the increased prevalence of chronic diseases - among them, SAH - the family takes more responsibilities for the health conditions of the elderly person [16]. However, in certain cases, the family lives with the elderly person because of the regular payment of their pensions, which ends up becoming a financial support to children and grandchildren in moments of hardship.

The time since the SAH diagnosis is an important aspect, because the longer the time for hypertension manifestation, the lower the quality of life [17]. Chronic diseases, especially cardiovascular diseases, are the main cause of death among senior citizens, in addition to representing a high economic and social cost. SAH is one of the cardiovascular diseases that most affect senior citizens worldwide [17].

The results show that a large part of patients suffered, in addition to SAH, from another chronic disease. Pimenta and Caldeira [18] claim that approximately 80% of people with SAH have comorbidities such as diabetes, dyslipidemia and atheromatosis. Despite the total number of respondents who make use of pharmacological treatment, such as antihypertensive drugs, it was found the occurrence of hypertensive crises, characterized by acute high blood pressure, classified as emergency and urgency. Hypertensive emergencies are conditions where there is a critical rise in the blood pressure, associated with lesion of target organs and imminent death risk. Hypertensive urgencies are characterized by a relevant BP rise (> 180 mmHg×120 mmHg)) in clinically stable patients, without acute impairment of target organs [1].

In relation to the brief multidimensional measure of religiousness/spirituality, the score of each dimension is specific and, the lower the score, the higher the degree of dimension in question. It was observed that the lowest score in all sections occurred in domain C, "forgiveness" (mean = 1.42). This domain focused on three types of questions: 1) self-forgiveness; 2) forgiveness to those who offend you; and 3) God's forgiveness. The results show that respondents emphasize the importance of forgiveness, which corroborates the study conducted by Pinto and Oliveira [19] on happiness and forgiveness – considering differences on gender, age and culture

– which found that the elderly forgive more easily, followed by adults and teenagers. As for gender, in our study, there were no significant differences between men and women regarding forgiveness.

The highest score (mean = 3.00) was in domain I "organizational religiousness", which showed two questions on the attendance to religious services (rituals, mass, cults and celebrations) and participation in other church activities. This demonstrated that respondents devoted little time to those activities. Old age and comorbidity of most respondents hamper their locomotion to churches, in general, located far from their homes. Often, these senior citizens depend on buses or other persons to take them to church. This also hinders attendance to religious services.

Rocha and Ciosak[16] conducted a study in which respondents with chronic diseases stated that they regularly attend church services and meetings, among others. The weekly religious practice was associated with a lower prevalence of high blood pressure compared to respondents that did not attend religious services. To Giovelli *et al.* [8], religious beliefs and practices of patients with chronic diseases are sources of social support.

Studies show a relationship between religiousness and spirituality and clinical and laboratory results, including the reduction of cortisol levels and mortality rates[4,9]. Another study shows minor BP reactivity in patients with greater religiousness, suggesting that religious beliefs can be an important variable for the study of patients with arterial hypertension, particularly the elderly[20]. Furthermore, other studies depict lower diastolic arterial pressure in hypertensive patients who were the recipients of spiritual intervention or who participated in religious services[21,22].

A study described by Silva *et al*[23] aimed at analysing the prevalence of high blood pressure in patients who were members of the Seventh-day Adventist church in the capital and countryside cities of the state of São Paulo, and found a lower number of hypertensive patients in this population compared to national studies. Lower blood pressure rates were found in the capital of the state than in the countryside, possibly due to better socioeconomic conditions and lifestyle.

It is also worth highlighting that religiousness and spirituality have a close relationship with different aspects of the ageing process, ranging from a successful ageing process to end-of-life care[24]. Spirituality is the topic that promotes a union between balance and harmony. Religious beliefs and practices can reduce loss of control, stress and a sensation of helplessness, allowing the cognitive structure reduce suffering and making treatment more effective[25]. In the case of chronic diseases such as SAH, spirituality can be the cognitive mediator for the interpretation of adverse events in a positive manner, promoting adjustment and adaptation of individuals to health conditions[26].

The results show that spirituality, religiousness and faith have a positive influence whilst patients cope with life obstacles and hardships, in addition to increasing patients' resilience, thus, improving their condition. Spirituality can be used as a strategy to tackle critical life circumstances, because it can increase one's sense of purpose and life meaning, associated with a greater resistance to stress-related diseases[27].

In addition to spirituality, the act of praying can add optimism to the process of addressing chronic diseases. The practice of praying is beneficial in several ways, because, in addition to requests to God, prayers are often made in order to thank life, health and family, which results in greater feelings of gratitude. The impact of coping with critical situations happens when the spirituality of the individual is applied to daily life and inherently to their most intimate values, ideals and beliefs[28]. Prayer allows human beings to get in touch with their deepest self and leads to the belief of self-control and control of their bodies and minds. The simple fact of believing that they can control something that goes beyond defined explanations gives men a sense of self-sufficiency.

Hence, it is worth noting that religiousness and spirituality are important dimensions for the well-being of hypertensive patients, particularly, in order to cope with diseases. The study described by Lucchetti *et al*[24] highlights that the search by the physician for information about the spiritual history of hypertensive and cardiac patients can favour treatment and its integrative approach. However, a better qualification is necessary, not only of the physician, but also of other healthcare practitioners for the whole care of the individual and their families[29].

Final considerations

The results found in this study point to a challenging research area in the field of religiousness and spirituality, which seems to gain relevance in the care to hypertensive patients, mainly the

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elderly. Therefore, an in-depth knowledge of religious and spiritual beliefs is necessary, since they may influence treatment and recovery. The multidisciplinary healthcare team can benefit from the assessment of the religious and spiritual history of patients with systemic arterial hypertension in order to implement a more integrative therapeutic project and which considers the holistic view of human beings in their biopsychosocial and spiritual context.

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Participation of the authors

All the authors collaborated in the conception of the project, data analysis and discussion of results and on the draft of the preliminary manuscript version. In addition, Cristiane de Fátima Silva and Fernanda Ribeiro Borges took part in the data collection and formatting, and Carolina Costa Valcanti Avelino, Amanda Vaz Tostes Campos Miarelli, Gabriela Itagiba Aguiar Vieira and Sueli Leiko Takamatsu Goyatá also collaborated in the final version of the manuscript.

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Exhibit

Brief Multidimensional Measure of Religiousness/Spirituality: 1999

DOMAIN A: Daily spiritual experiences

The statements below address potential spiritual experiences.

How often do you have the following expriences:

1. I feel the presence of God.
1. Many times a day 2. Everyday 3. Most of the day
4. Sometimes 5. Once in a while 6. Never or seldom

2. I find strength and solace in my religion.
1. Many times a day 2. Everyday 3. Most of the day
4. Sometimes 5. Once in a while 6. Never or seldom

3. I feel a deep inner peace or harmony.
1. Many times a day 2. Everyday 3. Most of the day
4. Sometimes 5. Once in a while 6. Never or seldom

4. I wish to be closer to or united with God.
1. Many times a day 2. Everyday 3. Most of the day
4. Sometimes 5. Once in a while 6. Never or seldom

5. I feel God's love for me, directly or through others.
1. Many times a day 2. Everyday 3. Most of the day
4. Sometimes 5. Once in a while 6. Never or seldom

6. I am spiritually touched by the beauty of creation.
1. Many times a day 2. Everyday 3. Most of the day
4. Sometimes 5. Once in a while 6. Never or seldom

DOMAIN B: Values/beliefs

7. I believe in a God that looks after me.
1. I totally agree 2. I agree 3. I disagree 4. I totally disagree

8. I feel a great responsibility for reducing the pain and suffering in the world.
1. I totally agree 2. I agree 3. I disagree 4. I totally disagree

DOMAIN C: Forgiveness

Because of my spiritual or religious beliefs:

9. I have forgiven myself for the things I have done wrong.
1. Always or almost always 2. Often 3. Seldom 4. Never

10. I have forgiven those who offended me.
1. Always or almost always 2. Often 3. Seldom 4. Never

11. I know God forgives me.
1. Always or almost always 2. Often 3. Seldom 4. Never

DOMAIN D: Private religious practices

12. How often do you pray in places other than churches or religious temples?
1. More than once a day 2. Once a day 3. Sometimes during the week 4. Once a week
5. Sometimes during the month 6. Once a month 7. Less than once a month 8. Never

13. According to your religious or spiritual tradition, how often do you meditate (closeness to God)?
1. More than once a day 2. Once a day 3. Sometimes during the week 4. Once a week
5. Sometimes during the month 6. Once a month 7. Less than once a month 8. Never

14. How often do you watch or listen to religious programs on the TV or radio?
1. More than once a day 2. Once a day 3. Sometimes during the week 4. Once a week
5. Sometimes during the month 6. Once a month 7. Less than once a month 8. Never

15. How often do you read the Bible or other religious literature (books, newspapers, magazines and brochures)?
1. More than once a day 2. Once a day 3. Sometimes during the week 4. Once a week
5. Sometimes during the month 6. Once a month 7. Less than once a month 8. Never

16. How often prayers or thanksgivings are made before or after meals at your home?
1. In all meals 2. Once a day 3. At least once a week
4. Only on special occasions 5. Never

DOMAIN E: Religious and spiritual resilience

Think how you understand and cope with the main issues in your life. To what extent do you see yourself involved in ways to address them?

17. I think that my life is part of a higher spiritual power.
1. A lot 2. Very much 3. A little 4. Not at all

18. I work in my union with God.
1. A lot 2. Very much 3. A little 4. Not at all

19. I see God as power, support and guide.
1. A lot 2. Very much 3. A little 4. Not at all

20. I think that God punishes me for my sins or lack of spiritual faith.
1. A lot 2. Very much 3. A little 4. Not at all

21. I ask if God has abandoned me.
1. A lot 2. Very much 3. A little 4. Not at all

22. I try to understand the problem and solve it without trusting in God.
1. A lot 2. Very much 3. A little 4. Not at all

23. To what extent is your religion involved (interested) in understanding and addressing stressful (difficult) situations?
1. Very involved 2. Little involved 3. Not very involved 4. Not involved at all

DOMAIN F: Religious support

These questions are aimed to check the kind of help that people from your religious community would give to you, if you needed it in the future.

24. If you were ill, how many people from your religious community would help you?
1. Many 2. Some 3. Few 4. None

25. How much comfort would people from your religious community give to you, if you were in hardship?
1. A lot 2. Some 3. Little 4. None

26. How often do people from your religious community seek you?
1. Often 2. Many times 3. Once in a while 4. Never

27. How often do people from your religious community criticize you and the things you do?
1. Often 2. Many times 3. Once in a while 4. Never

DOMAIN G: Religious/spiritual history

28. Have you ever had a life-changing religious or spiritual experience?
( ) No ( ) Yes
If YES, how old were you when you had such experience?

29. Have you ever been rewarded for your faith?
( ) No ( ) Yes
If YES, how old were you when you had such experience?

30. Have you ever had a significant loss of faith?
( ) No ( ) Yes
If YES, how old were you when you had such experience?

DOMAIN H: Commitment

31. I try to consistently keep my religious beliefs throughout life.
1. I totally agree 2. I agree 3. I disagree 4. I totally disagree

32. Did you contribute financially to religious communities or causes last year?
Weekly contribution:
Monthly contribution:
Annual contribution:

33. In a week, how many hours do you devote to activities of your church or activities that you carry out because of religious or spiritual reasons?

DOMAIN I: Organizational religiousness

34. How often do you take part in religious services (rituals, mass, cults, celebrations)?
1. More than once a week 2. Every week 3. Once or twice a month
4. Every month 5. Once or twice a year 6. Never

35. In addition to religious services, how often do you take part in other activities of the church and religious temples?

1. More than once a week
2. Every week
3. Once or twice a month
4. Every month
5. Once or twice a year
6. Never

DOMAIN J: Religious preferences

36. What is your religion at the moment?

_____

If Christian, what is your church?

_____

DOMAIN K: Global self-assessment

37. To what extent do you consider yourself as a religious person?

1. Very religious
2. Moderately religious
3. Not very religious
4. Not religious at all

38. To what extent do you consider yourself as a spiritual person?

1. Very spiritual
2. Moderately spiritual
3. Not very spiritual
4. Not spiritual at all

STUDY INSTRUMENT

1. Age: _____years.

2. Sex: (1) male (2) female

3. Do you attend the PSF? (1) Yes (2) No

4. In what district?_____

5. What is your current marital status?

(1) Single
(2) Married
(3) Living together/cohabitation
(4) Widowed
(5) Divorced/separated
(6) N.S./N.R.

6. What is your current professional status?

(1) full-time job
(2) Part-time job
(3) Unemployed
(4) Pensioner
(5) On sick leave
(6) Student
(7) other:_____ (specify)

7. What is your monthly household income?

(1) less than one minimum wage
(1) one minimum wage
(3) 1 to 2 minimum wages
(4) 3 to 4 minimum wages
(5) 5 minimum wages or more

8. How many people live with you?

(1) 1 person
(2) 2 persons
(3) 3 persons
(4) 4 persons
(5) 5 persons
(6) more

9. Do you live with:

(1) Children
(2) Spouse
(3) Grandchildren
(4) Alone
(5) No relatives
(6) others_____

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10. Do you profess any religion or cult?

(1) Catholic	(2) Protestant Christian	(3) Pentecostal Christian
(4) Spiritism	(5) Afro-Brazilian religions	(6) Asian cults
(7) others	(8) no	

11. Do you practice it regularly?
(1) Yes (2) No
12. How long have you been a hypertensive patient for? _____

13. Do you have any other chronic disease? (1) Yes (2) No

14. Are you under pharmacological treatment? (1) Yes (2) No

15. Are you receiving treatment that does not include the intake of drugs? (1) Yes (2) No

16. Have you been hospitalised in the last twelve months? (1) Yes (2) No

17. The reason for hospitalisation? _____

18. Have you ever experienced a significant event in your life? (1) Yes (2) No

19. Do you engage in any leisure activity? (1) Yes (2) No

20. How much time do you devote to leisure? _____