

A SYSTEMATIC REVIEW OF THE INFLUENCE OF RELIGIOSITY ON THE ADOPTION OF AN ACTIVE LIFESTYLE

Revisão sistemática acerca da influência da religiosidade na adoção de estilo de vida ativo

Revisión sistemática sobre la influencia de la religiosidad en la adopción de estilo de vida activo

Article Review

ABSTRACT

Objectives: To identify and analyze the determining religious factors in the adoption of an active lifestyle through a systematic review. **Methods:** The research was performed in the LILACS, MEDLINE / PubMed, SciELO, CINAHL, SPORTDiscus and SocINDEX databases using the following descriptors and keywords: “religion”, “religiosity”, “spiritual”, “spirituality”, “physical activity” and “physical exercise”. The selection of articles had the following inclusion criteria: fully available original articles published between 2002 and 2011 in Portuguese and English. Literature reviews, theses, dissertations and monographs were excluded. **Results:** The sample consisted of ten articles. It could be identified from their analysis that in groups based on faith, holy scriptures and/or sacred teachings, the messages transmitted by the religious leaders and the level of religiosity are the main factors for adopting an active lifestyle. **Conclusion:** Religiosity appeared as an important aspect for the incorporation of physical activity in one’s life, thus improving their quality of life.

Descriptors: Religion; Spirituality; Exercise; Life Style; Quality of life.

RESUMO

Objetivo: Identificar e analisar, por meio de uma revisão sistemática, os fatores religiosos determinantes para a adoção de um estilo de vida ativo. **Métodos:** Realizou-se busca nas bases de dados LILACS, MEDLINE/PubMed, SciELO, CINAHL, SPORTDiscus e SocINDEX utilizando-se os seguintes descritores e palavras-chave em português e inglês: “religião”, “religiosidade”, “espiritual”, “espiritualidade”, “atividade física” e “exercício físico”. A seleção dos artigos teve como critérios de inclusão: artigos originais, disponíveis em formato completo, publicados no período de 2002 a 2011 e nos idiomas português e inglês. Foram excluídos estudos de revisão de literatura, teses, dissertações e monografias. **Resultados:** Dez artigos compuseram a amostra. A análise deles identificou que, em grupos baseados na fé, em escrituras e/ou ensinamentos sagrados, as mensagens transmitidas pelos líderes religiosos e o nível de religiosidade representaram os principais fatores para a adoção de um estilo de vida ativo. **Conclusão:** A religiosidade se mostrou como um aspecto relevante para que os indivíduos incorporassem a prática de atividade física, melhorando, assim, a sua qualidade de vida.

Descritores: Religião; Espiritualidade; Exercício; Estilo de vida; Qualidade de Vida.

RESUMEN

Objetivo: Identificar y analizar los factores religiosos determinantes de la adopción de un estilo de vida activo a través de una revisión sistemática. **Métodos:** Se realizó una búsqueda en las bases de datos LILACS, MEDLINE/PubMed, SciELO, CINAHL, SPORTDiscus y SocINDEX utilizando de los siguientes descriptores y palabras-clave en portugués e inglés: “religión”, “religiosidad”, “espiritual”, “espiritualidad”, “actividad física” y “ejercicio físico”. La selección de los artículos tuvo como criterios de inclusión: artículos originales, disponibles en formato completo, publicados en el período de 2002 a 2011 y en los idiomas portugués e inglés. Fueron excluidos los estudios de revisión de literatura,

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tesis, trabajos de fin de máster y monografías. **Resultado:** Diez artículos fueron incluidos en la muestra. El análisis identifió que en grupos basados en la fe, en escrituras y/o enseñanzas sagradas, los mensajes transmitidos por los líderes religiosos y el nivel de religiosidad representaron los principales factores para la adopción de un estilo de vida activo. **Conclusión:** La religiosidad se mostró como un aspecto relevante para que los individuos incorporasen la práctica de actividad física mejorando, de esa manera, su calidad de vida.

Descriptores: Religión; Espiritualidad; Ejercicio; Estilo de Vida; Calidad de Vida.

INTRODUCTION

Religion is an organized system of beliefs, practices and rituals that influence people's daily lives, impacting on social norms and values and lifestyle attitudes⁽¹⁾. Given that, individuals who follow a particular doctrine usually incorporate behavior patterns that are considered healthy and adhere to a set of social values, symbols and practices that facilitates the approximation of the sacred and discourages individual deviation⁽²⁻⁷⁾.

Therefore, the relationship between the sacred and health behaviors may result from principles adopted by religious doctrines that go against the adoption of harmful behaviors and encourage behaviors that may have a positive impact on well-being indicators⁽⁵⁾. Thus, religion can influence the construction of knowledge relating to men's health and hence promote unique lifestyles, including body practices. Concerning these practices, physical activity is a health-promoting factor that can positively change people's habits^(6,7).

Regular physical activity is good for health because it is associated with prevention and reduction of risks of non-communicable diseases such as cardiovascular disease, diabetes mellitus, obesity, fibromyalgia and some types of cancer^(8,9). It also improves mental health, including symptoms of depression and anxiety. However, although such benefits are strongly evidenced and widely spread by the media and healthcare professionals, a significant part of the population leads an inactive life, revealing the lifestyle of modern society⁽¹⁰⁻¹²⁾.

Physical activity interventions are shown to be effective since they promote habit and behavior changes by encouraging the adoption of a healthy lifestyle⁽⁷⁾. Embracing a religious belief can facilitate the adoption of an active lifestyle since doctrines present factors that can influence behavior change^(13,14). For instance, a study⁽¹⁾ revealed that participating in church youth groups is associated with low prevalence of physical inactivity within leisure context⁽¹⁾.

In this context, it can be noticed that religiosity is positively associated with healthy behaviors of people affiliated with some particular religion. However, little is known about the religious factors that influence the behavior change in those people who respect and follow the norms established by the doctrine. This research aimed to identify and assess, through a systematic review, the religious factors that determine the adoption of an active lifestyle.

METHODS

To achieve the proposed objective, it was conducted a systematic review of scientific literature, which has enabled the integration of information from a set of studies that were carried out previously⁽¹⁵⁾. Research was conducted in the scientific databases LILACS, MEDLINE/PubMed, SciELO, CINAHL, SPORTDiscus and SocINDEX of the website of the Coordination for the Improvement of Higher Education Personnel (*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior – CAPES*). Such databases were chosen because of the higher number of publications on the issue assessed by this research.

Database search was performed using the following descriptors and keywords in both English and Portuguese languages: "religion", "religiosity", "spiritual", "spirituality", "physical activity" and "physical exercise". Such words were combined using the logical connective AND: religion AND "physical activity" (265 studies); religion AND "physical exercise" (141 studies); religiosity AND "physical activity" (36 studies); religiosity AND "physical exercise" (91 studies); spiritual AND "physical activity" (204 studies); spiritual AND "physical exercise" (82 studies); spirituality AND "physical activity" (143 studies); spirituality AND "physical exercise" (64 studies).

The following criteria were adopted for the selection of studies: full-text articles available, studies published from 2002-2011 and original articles about the influence of religiosity on the adoption of an active lifestyle published in either Portuguese or English. The research excluded literature review articles, theses, dissertations and monographs. It is worth saying that articles found repeatedly were counted only once.

After completing the search, two independent reviewers analyzed the articles found by reading their titles and abstracts, taking into account the inclusion and exclusion criteria. Any differences were resolved by a third reviewer. After that, the full-text articles of the remaining studies were assessed.

In order to create a database of easy access and management, the articles were organized correctly using an author-developed formulary consisting of the following

data: article identification (title, country, authors, journal, year, volume, number, pagination, descriptors/keywords; research objectives; information about the study sample;

methodological characteristics; and main results. It is important to highlight that each selected article was carefully read and had their information added on the formulary.

Table I - Characteristics of the articles selected by the electronic databases.

Author/ Year	Methodology	Country	Sample	Main Results
Walseth e Fasting (2003) ¹⁶	Qualitative descriptive study	Egypt	27 college women aged 18-26 years old.	Islam influences Egyptian women to carry out sport activities.
Fitzgibbon <i>et al.</i> (2005) ¹⁷	Randomized controlled trial	USA	59 women including patients, employees and visitors of a hospital of Chicago.	Adding a formal faith-based component may, in addition to physical activity and the reduction of fat consumption, contribute to weight loss.
Roff <i>et al.</i> (2005) ¹⁸	Quantitative descriptive study	USA	973 elderly men and women.	Elders with high levels of organizational and intrinsic religiosity adhere to leisure-time physical activity more often.
Bopp <i>et al.</i> (2007) ⁷	Qualitative descriptive study	USA	44 members of the African Methodist Episcopal Church aged 18 and older of both sexes.	People seek to gain strength from God to be physically active since, according to the scriptures, they can be better Christians if they practice physical activity and eat healthily.
Shuval <i>et al.</i> (2008) ¹³	Qualitative descriptive study	Israel	45 Arabic college students of both sexes.	Religion is seen as a facilitator since the active lifestyle is suggested by Muslim scriptures.
Whitt-Glover <i>et al.</i> (2008) ¹⁴	Quantitative interventional study	USA	87 black adults, church attendees.	A faith-based intervention can be an adequate strategy to improve physical activity among sedentary black adults.
Leopold e Juniu (2008) ¹⁹	Quantitative interventional study	USA	47 public school students of both sexes.	Students who participated in the spiritual group were more likely to adhere to healthy behaviors concerning physical activity, nutrition, spiritual growth, interpersonal relationships, stress management and sanitation responsibility.
Maynard <i>et al.</i> (2009) ²⁰	Quantiquitative interventional study	London	77 children aged 8-13 years old and their family (38 parents and 11 grandparents).	When compared to school, places of worship offer valuable opportunities to encourage the adoption of a healthy lifestyle through the practice of physical activity and good eating habits for all the family.
Ayers <i>et al.</i> (2010) ²¹	Quantitative descriptive study	USA	591 Korean women who are obese or overweight.	The communication inside religious institutions transmitted by religious leaders and believers concerning healthy eating and practice of physical activity can reduce women's chances of remaining obese or overweight.
Duru <i>et al.</i> (2010) ²²	Randomized controlled trial	USA	62 sedentary elderly women.	There was an improvement in the walk and a reduction in blood pressure in six months of faith-based intervention, which included Bible reading, prayers, establishment of goals, a community resource guide and physical activity sessions.

RESULTS

The search process of this study used combined descriptors and keywords and originally identified 1026 articles. Then there was a refinement using the following inclusion criteria as search filters: 1) full-text articles available, identifying 345 studies; 2) articles published between 2002 and 2011, identifying 172 studies; 3) articles available in Portuguese and English, identifying 167 studies. A total of 21 of these articles were found repeatedly, reducing the sample size to 146 articles.

After the Reading of the titles, 82 articles were selected for further analysis of abstracts. Thus, 18 publications about the positive influence of religiosity on the adoption of a healthy lifestyle were identified. After that, the full-text of these articles were read but only ten were included in the sample for they talked about potential religious factors that could determine the practice of physical activity.

Table I shows the 10 articles selected and highlights the research characteristics concerning methodology, country, sample and main results, showing the aspects that influence the regular practice of physical activity. It is important to note that the articles are listed in ascending chronological order.

Regarding the year of publication, most studies were published in 2008, totaling three articles. Thus, it could be observed a scarcity of studies on this issue, showing the need for the development of more research. Concerning the countries where the research took place, there were no studies conducted in Brazil and seven out of ten publications took place in the United States^(7,14,16,18-22), revealing the North America's interest in studies about the influence of religiosity on the adoption of healthy behaviors.

Regarding age groups, the studies assessed people at different ages; however, there was a predominance of both male and female adults^(7,14,16,17). With regard to methodology, the quantitative research design prevailed^(14,16,18,19,21,22), followed by the qualitative approach^(7,13,17), while only one article used a mix of quantitative and qualitative approaches⁽²⁰⁾, also known as “*quantiquality*” design.

From the main results of the selected studies, it was possible to identify different religious factors that influence the practice of physical activity. They were interpreted and then four analytical categories were built: *participation in faith-based groups, sacred teachings and/or scriptures, religious leaders' messages and level of religiosity*.

DISCUSSION

Religiosity is an important factor in the sociocultural context, appearing as a mediating factor in the adoption of certain behaviors by people. Religion is able to produce

values by which people are to live⁽²³⁾. Therefore, as soon as an individual follows a doctrine, he/she incorporates its values and adheres to a widespread and complex religious identity, including the acceptance of behaviors that are considered healthy⁽²⁾.

Notwithstanding, this study revealed that research concerning religiosity as a factor that influences the adoption of an active lifestyle is being slowly conducted over the years. However, although Brazil has a wide range of religions, there are no studies about this issue in the country. The articles found portrayed a reality that is embedded in an international context, with religious norms and standards that differ from the Brazilian context. Based on this fact, it is possible to assert that the scarcity of research on this issue hinders the promotion of health benefits for the Brazilian society.

Regarding the methodology employed in the selected studies, there was a significant number of quantitative articles with very heterogeneous samples concerning age group, making the comparison of the findings difficult.

Articles were discussed based on four analytical categories that represented religious factors capable of determining a healthy lifestyle: *participation in faith-based groups, sacred teaching and/or scriptures, religious leaders' messages and level of religiosity*. The first category (participation in faith-based groups) included five articles^(14,16,19-22).

Those studies showed the importance of religious intervention in providing health benefits for people such as weight loss through physical activity and healthy eating. Therefore, after the participation in an intervention group, people become aware of the impact of healthy behaviors on their lives, hence changing habits and attitudes relating to sedentariness and adopting an active lifestyle.

Other studies^(5,24) revealed that religiosity can also be a protective factor against different risk factors that are considered current public health concerns, such as the use of alcohol, drugs and tobacco. Religiosity promotes well-being and also physical and mental care associated with health behavior changes⁽²⁵⁾. Therefore, it is possible to notice the importance of the association between religiosity and the practice of healthy behaviors.

The second category (sacred teaching and/or scriptures) included three articles^(7,13,17). These articles revealed that religious scriptures suggest the need for body care, which is considered a temple of the soul. For instance, excessive eating is considered a sin throughout the Bible and Christians shall take care of their body through the practice of physical activity and healthy eating⁽⁷⁾. According to a research⁽¹³⁾, the Quran verses also favor the promotion of an active lifestyle⁽¹³⁾. Likewise, another research⁽¹⁷⁾ observed that

the Muslim verses emphasize the importance of physical activity and sports to achieve a good physical fitness in case of a war.

Within this context, it is possible to notice that sacred teachings are very important in shaping believers' health-related behavior. Religious scriptures have a positive value in the lives of people and society⁽²⁶⁾. A study⁽²⁷⁾ on the implications of the "Word of God" through Bible reading in everyday life of Brazilian Protestants revealed that the divine word provides the tools for change and the Bible is a supporting tool where one can find words of comfort that inspire new behaviors⁽²⁷⁾.

The third category (religious leaders' messages) included one article⁽²¹⁾ that showed that the exposure of believers to health-related messages from religious leaders can help prevent obesity⁽²¹⁾. Therefore, this is another important aspect that can reduce the exposure to sedentariness and inadequate nutrition. A research⁽²⁸⁾ aiming to verify the relationship between body practices and religiosity and also the potential influence of religious institutions on body practices found out that all the religious leaders interviewed were in favor of the regular practice of physical activity and aware of its importance for the individual's physical and mental well-being. They also reported that the leaders encouraged and supported the practice of physical activity through church camps and projects.

The last category (level of religiosity) also included only one article⁽¹⁸⁾. This article showed that those people with high levels of religiosity used to adhere to physical and leisure activities more often⁽¹⁸⁾. Thus, it is possible to observe that the adoption of a religion leads believers to respect the norms and values established by the doctrine, hence improving quality of life. Corroborating this finding, a research⁽²⁹⁾ revealed that the level of religiosity is associated with lower rates of depression, suicidal behavior and exposure to alcohol and drugs. A study conducted with adults⁽³⁰⁾ showed that the importance given to spirituality, religiosity and personal beliefs are positively associated with quality of life in many different contexts, including leisure-time physical activities.

Concerning the discussion of the selected articles, it can be noticed that religiosity-related aspects are associated with health and quality of life of people who follow a religious tradition since they become aware of the importance of healthy behaviors, especially the ones related to body care.

CONCLUSION

In recent years, there has been a growing interest in the study of religiosity for it has a direct influence on people's behaviors and values. The adoption of sacred standards

transforms the religious believer since he/she starts to trust in God's protection and respect the norms and values established by the doctrine, hence improving quality of life through the adoption of healthy behaviors like the practice of physical activity.

Based on the aforementioned, this research presented the religious factors that influence the adoption of an active lifestyle such as the *participation in faith-based groups, sacred teaching and/or scriptures, religious leaders' messages* and *level of religiosity*. However, regardless of these categories, religiosity stood out as an important factor that led people to incorporate the practice of physical activity into their lives.

Knowing that the religious factors that determine a lifestyle are becoming more and more present in people's lives highlights the need for developing field research in Brazil. Studies must deeply investigate issues related to different religions that encourage healthy habits and behaviors, especially those relating to the practice of physical activity.

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