Original Article

Spirituality, Religion, and Health: a Critical Appraisal of the Larson Reports

O. Freedman, S. Orenstein, P. Boston, T. Amour, J. Seely, B.M. Mount*

Abstract

The four-volume corpus *The Faith Factor*, and *Scientific Research on Spirituality and Health: A Consensus Report* by Larson et al constitute the largest English-language review of research on spirituality and health. We have done a critique of the 329 systematic analyses of peer-reviewed research papers presented therein. The objectives were to determine if the Larson conclusions can be generalized; to document the understanding of the potential of qualitative research in assessing the spiritual domain; and to examine whether the definitions of religion and spirituality used by Larson et al correspond to those in general use. We conclude that their results cannot be generalized to other religious and cultural settings; that there is a need for more research focusing on age groups, cultures, religions, and clinical settings not adequately represented in studies to date; and that the need for more qualitative research justifies a detailed analysis of the use of qualitative methods in the studies reviewed by the Larson group. Finally, there is a need to establish a common vocabulary that bridges cultural and religious traditions, and facilitates clinical care, research, and teaching relating to spirituality, religion, and health.

This article has been peer-reviewed.

Résumé

Le document en quatre volumes intitulé *The Faith Factor, and Scientific Research on Spirituality and Health A Consensus Report by Larson et al* constitue la plus importante étude en langue anglaise des recherches sur les liens entre spiritualité et santé. Nous avons fait un examen critique des 329 analyses de travaux revus par des pairs présentées dans l'ouvrage. Nous avions pour objectifs de déterminer si les conclusions de Larson peuvent être généralisées, de comprendre les possibilités de la recherche qualitative dans le domaine de la spiritualité et de vérifier si les définitions données par Larson et ses collaborateurs de la religion et de la spiritualité correspondent à celles qu'on donne en général. Nous concluons que les résultats de Larson et coll. ne peuvent pas être étendus à d'autres contextes culturels et religieux, qu'il serait nécessaire d'orienter les recherches selon les groupes d'âge, les cultures, les religions et les circonstances cliniques non représentés suffisamment dans les études produites jusqu'à maintenant et que le besoin de plus de recherches qualitatives justifie une analyse détaillée de l'emploi des méthodes qualitatives dans les études retenues par le groupe de Larson. Nous estimons enfin qu'il serait nécessaire d'établir un vocabulaire commun qui ferait le pont entre les traditions culturelles et religieuses et faciliterait les soins, la recherche et l'enseignement lorsqu'il s'agit de spiritualité, de religion et de santé.

Cet article a fait l'objet d'une évaluation externe.

Introduction

In 1998, David B. Larson et al completed publication of a series of four reports entitled *The Faith Factor*[1-4] and a consensus report entitled *Scientific Research on Spirituality and Health*.[5] These volumes comprise the systematic appraisal of 329 peer-reviewed research studies and 35 review articles on religion or spirituality and health. Associated with three conferences on scientific progress in spirituality, they focus on five areas — physical health, mental health, alcohol and drug problems, neurosciences, and religious or spiritual interventions. The John Templeton Foundation funded the conferences, and the National Institute for Healthcare Research published the reports. The work has been invaluable in calling attention to publications that have been neglected by health-care researchers. These volumes constitute the largest review of research relating to spiritual-

*McGill programs for integrated whole person care, palliative care.

Address for reprints: McGill Programs for Integrated Whole Person Care, 546 Pine Ave. W., Montreal QC H2W 1S6.

ity and health to date. Among its conclusions, the Larson review found the following:

- There is an association between increased religiousness or spirituality and health, both physical and mental. The nature of this relationship may not be causal.
- Problems of definition, and methodological, funding, and publication barriers to further research in this area exist.
- There is a need for more studies involving neglected patient-populations, including AIDS patients and the terminally ill. Rigorous quantitative research is also needed.

The spiritual domain is an important determinant of quality of life in advanced illness,[6-8] and in relieving "total pain" (suffering that goes beyond physical distress, and draws on social, economic, emotional, and spiritual factors[9]). Eric Cassell describes a conceptual framework for this type of suffering.[10] He suggests that such anguish requires attention to all dimensions of human experience if healing, in the sense of restoring the patient to wholeness, is to be achieved. We have done a review of the Larson corpus from the perspective of palliative-care providers.

Goals

- To determine whether the conclusions of Larson et al can be generalized.
- To document the understanding of the potential of qualitative research in assessing the spiritual domain, as reflected by the Larson reports.
- To examine whether the definitions of religion and spirituality used by Larson et al correspond to those used in society.

Method

All 329 peer-reviewed research studies cited by Larson et al were analysed by year of publication; sample size; whether quantitative and qualitative methods were used; study design; sampling method; characteristics of the study population such as gender, country, locale (geographic boundaries), race, religion, and selection criteria; risk factors; and outcome measures. Two graduate students did this primary analysis. Inter-rater reliability was excellent across all variables (mean r=0.85, SD=0.16, N=47).

A secondary analysis was done on those papers in which it was determined that qualitative methods may have contributed to the findings. The method used and the findings of this aspect of the study are described elsewhere.[11]

The accuracy of the systematic summary of each study provided by Larson et al was accepted. Although we were interested in studying the full text of the papers they reviewed, available resources did not permit an independent assessment of this aspect of their study.

Findings

Year of Publication

The year of publication of the studies cited ranged from 1955 to 1997, with most papers appearing after 1980. The most frequent year of publication was 1990.

Sample Size

The sample size ranged from nine to >15,000. Most studies included fewer than 500 individuals.

Nature of Study

All but one of the 329 studies were mainly quantitative; 14 studies were determined to contain valid qualitative data in addition to quantitative data.

Study Design

A variety of study designs were used. Many were prospective cohort studies, case control studies, and cross-sectional surveys (questionnaire, structured interviews). Convenience and random sampling methods were often used, though in 229 studies, the sampling method was not documented.

Study Population

Most of the studies were drawn from continental U.S.A. (243) and Canada (10). Other studies came from Europe (12) and the U.K. (7), with a small number from other parts of the world. The study population was mainly drawn from local or community settings (128), while 37 were regional, and 47 were national.

Data did not permit race to be identified in 223 studies. When racial data were provided, the largest group of individuals studied was Caucasian (77 studies), while in 23 studies, most of the subjects were Afro-American. On average, the largest racial group constituted 85 per cent of the study population, while the second largest racial group constituted 6.2 per cent of the study population.

Data relating to the age of the study population were missing from 50 studies. When provided, the age of the study population tended to be young, but children less then 13 years old were involved in only three studies. Subjects 13 to 29 years old participated in 84 studies. Participants included subjects who were 13 to 64 years old in 24 studies, 30 to 64 years old in 64 studies, and 65 and over in 86 studies (exclusively 65 and over in 28 studies).

It was generally reported that both men and women were included, so that it was impossible to draw conclusions about the predominant gender studied. In the 55 studies that selected participants by gender, the two genders were evenly split (female, 28 studies; male, 27 studies).

In many cases, the study population was drawn from a particular group: thus, 65 studies dealt with students, 12 with health professionals, 65 with patients with one or another disease (only one study dealt with the terminally ill), while 92 were drawn from the general population. Data were missing to evaluate this aspect in 39 studies.

Religious affiliation, when mentioned, was mainly Christian (129 studies) with small numbers of other groups included (Jewish 4, Hindu and Muslim 1, and no Buddhist studies). Data were missing to evaluate this aspect in 92 studies.

Predictors of Outcome

The most widely used predictors of outcome reflected religious adherence (292 studies). These included religious membership; frequency of religious observance; prayer (importance, frequency); and ratings of personal religiosity, religious commitment, religiousness, and religious coping. Few studies tried to assess intrinsic (34) or extrinsic (27) religiosity. Other outcome measures used included scales reflecting quality of life, life satisfaction, or coping (57 studies); mental-health scales for anxiety, depression, death anxiety, self-esteem, denial (157 studies); physical-health measures (108 studies); social-health measures (153 studies); socioeconomic scales (76 studies); general health or well-being (15 studies); sexuality scales (31 studies); third-party healing (13 studies); belief in after-life (10 studies); and morality or values scales (seven studies).

Of the 292 studies that monitored religious adherence, 112 demonstrated a statistically significant positive correlation with health ($p<0.05$) (better health outcome for those with greater religious adherence). In 16 studies, the results were not significant, while there were 15 studies in which the correlation was negative (the health outcome was worse for those with greater religious adherence).

Of the studies monitoring intrinsic religiosity, 15 demonstrated an impact on health (13 a positive correlation ($p<0.05$), and two a negative correlation). When extrinsic religiosity was monitored, 13 studies documented a significant correlation with health ($p<0.05$) (in three studies, a positive correlation, while in 10, the correlation was negative). Finally, of the studies monitoring outcome variables other than religious adherence, 79 found a correlation with health (in 62 a positive correlation ($p<0.05$), while in 17, there was a negative correlation).

Discussion

Generalizability

The extent to which the Larson findings can be generalized globally is limited for several reasons. The studies cited are overwhelmingly representative of the U.S. population — reflecting a preponderance of young, white, and Christian individuals. Though this likely reflects the published literature rather than a biased selection of the studies cited, it limits the extent to which such data can be generalized to persons of other cultures, religious groups, ages; or to persons with severe or life-threatening disease. Studies in older individuals and in those facing terminal illness are needed, given the impression that religion and spiritual concerns seem to assume a greater importance in later age and in those near death.

Definition of Religion, Religiousness, Spirituality

The definitions adopted by the Larson group are worth citing here.

Criterion for Spirituality

A. The feelings, thoughts, experiences, and behaviours that arise from a search for the sacred. The term "search" refers to attempts to identify, articulate, maintain, or transform. The term "sacred" refers to a divine being, Ultimate Reality, or Ultimate Truth as perceived by the individual.

Criteria for Religion and Religiousness

A. Criterion for spirituality (above).

or B. A search or quest for non-sacred goals (such as identity, belonging, meaning, health, or wellness) in a context that has as its primary goal the facilitation of A.

and C. The means and methods (for example, rituals or prescribed behaviours) of the search that receive validation and support from within an identifiable group of people.[12]

These definitions make "spirituality" a more restricted domain than "religion." Both definitions insist on a reference to the sacred. The definition of spirituality excludes non-sacred notions, while the criteria for religion include the non-sacred as long as this involves the context of facilitating the primary goal of a search for the sacred. These distinctions seem to be contrary to the accepted notions of spirituality and religion, which would see reference to the spiritual as being more general.[13,14]

By adopting these definitions, it becomes difficult if not impossible to separate spirituality from religion, as seen in the authors' use of the terms interchangeably or together as "religion-spirituality." Thus, adopting such definitions encourages the notion that quantitative measures of religious adherence adequately reflect the subjects' spirituality and the importance of religion. There is value in trying to separate the two concepts of religion and spirituality. Many individuals for whom the notion of spirituality is important, would characterize themselves as "spiritual" yet would reject the notion of a search for the Divine. Only narrative or qualitative research is likely to isolate the essential concepts behind this self- proclaimed spirituality.

Religiosity and spirituality may be two overlapping concepts where the part in common is akin to intrinsic religiosity. Furthermore, the positive benefit to health may be related to the part in common. Were the beneficial results claimed for religion-spirituality to be due entirely to religious adherence, without reference to the degree to which the religion's values and beliefs had been incorporated into the person in a mature way, it would argue for the significant determinants being sociocultural factors rather than a "search for the sacred."

Conclusions

The studies reviewed by Larson et al largely reflect the experiences of Caucasian, American, Christian subjects, and their results cannot be generalized to other religious and cultural settings.

There is a need for more research focusing on age groups, cultures, religions, and clinical settings inadequately represented in studies to date.

The need for more qualitative research is apparent. A detailed analysis of the use of qualitative methods in the studies reviewed by Larson is warranted.

There is a need to establish a common vocabulary that bridges cultural and religious traditions, and facilitates clinical care, research, and teaching relating to spirituality, religion, and health.

Acknowledgment

This project was supported by funding from M. Flanders, The Nathan Cummings Foundation, Purdue Pharma (Canada), and The R. Howard Webster Foundation.

References

1. Matthews DA, Larson DB, Barry CP. The faith factor: an annotated bibliography of clinical research on spiritual subjects, volume 1. Rockville: National Institute for Healthcare Research, 1993.
2. Larson DB. The faith factor: an annotated bibliography of systematic reviews and clinical research on spiritual subjects, volume 2. Rockville: National Institute for Healthcare Research, 1993.
3. Matthews DA, Larson DB. The faith factor: an annotated bibliography of clinical research on spiritual subjects, volume 3: enhancing life satisfaction. Washington: National Institute for Healthcare Research, 1995.
4. Matthews DA, Saunders DM. The faith factor: an annotated bibliography of clinical research on spiritual subjects, volume four: prevention and treatment of illness, addictions, and delinquency. Rockville: National Institute for Healthcare Research, 1997.
5. Larson DB, Swyers JP, McCullough ME. Scientific research on spirituality and health: a consensus report. Rockville: National Institute for Healthcare Research, 1997.
6. Cohen SR, Mount BM, Tomas J, Mount L. Existential well-being is an important determinant of quality of life: evidence from the McGill quality of life questionnaire. Cancer 1996;77(3):576.
7. Cohen SR, Hassan SA, Lapointe BJ, Mount BM. Quality of life in HIV disease as measured by the McGill quality of life questionnaire. AIDS 1996;10:1421-7.
8. Cohen SR, Mount BM. Living with cancer: "good" days and "bad" days — what produces them? Can the McGill quality of life questionnaire distinguish between them? Cancer 2000;89:1854-65.
9. Saunders C, Sykes N. The management of terminal disease, third edition. London: Edward Arnold, 1993.
10. Cassell EJ. The nature of suffering and the goals of medicine. Oxford: Oxford University Press, 1991:40.
11. Boston P, Mount BM, Orenstein S, Freedman O. Spirituality, religion, and health: the need for qualitative research. Ann R Coll Physicians Surg Can 2001;34(6):368-74.
12. Larson DB, Swyers JP, McCullough ME. Scientific research on spirituality and health: a consensus report. Rockville: National Institute for Healthcare Research, 1997:21.
13. King M, Speck P, Thomas A. The royal free interview for religious and spiritual beliefs: development and standardization. Psychol Med 1995;25:1125-34.
13. Shafranske EP. Religious beliefs, affiliations, and practices of clinical psychologists. In: Shafranske EP, editor. Religion and the clinical practice of psychology. Washington: American Psychological Association, 1996:149-62.

Received February 21, 2001
Accepted November 19, 2001

Gene Patenting

Do we own our genes, or do they belong to our parents, to our governments, or to a Supreme Being? Ownership is only one bioethical issue involved in gene patenting. A new Scope Note, *Gene, Patents, and Bioethics: Will History Repeat Itself?* from the National Reference Center for Bioethics Literature at the Kennedy Institute of Ethics, Georgetown University, provides an overview of both the history of U.S. patent law and the field of genetics before identifying resources to explore the question of whether life should be patentable and other issues at this intersection of ethics, science, and the law.

The 39th paper in the Scope Note Series, it provides background information and citations to material from journal articles, books, and congressional and international reports that document issues raised by genetic patenting. Patents can be awarded to any discovery that is new or useful, but while these legal documents of ownership regulate access to patented objects, they include no judgment about the morality of their use. Included resources address this issue and the applicability of patent law to genetic sequences or life forms discovered or created in the laboratory.

The Scope Note Series offers an overview of topics in biomedical ethics with immediate reference to facts, opinions, or legal precedents. Other recent titles are *Landmark Legal Cases in Bioethics and Bioethics Commissions: Town Meetings with a "Blue, Blue Ribbon"* (includes references to reports published by bioethics commissions worldwide). Useful to medical and legal practitioners, scholars, journalists, students, and interested laypersons, Scope Notes are available from the National Reference Center for Bioethics Literature, Kennedy Institute of Ethics, Georgetown University, Washington DC 20057-1065, telephone 888-246-3849 for $5 each prepaid ($8 overseas airmail).