

Systematic Reviews

Influence of religion and spirituality on head and neck cancer patients and their caregivers: a protocol for a scoping review

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Full Title:	Influence of religion and spirituality on head and neck cancer patients and their caregivers: a protocol for a scoping review
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Abstract:	<p>Introduction</p> <p>Head and neck cancers (HNC) are devastating, thus imposing a negative impact on the appearance of an individual as well as vital activities such as eating, swallowing, speaking, and breathing. Therefore, HNC patients undergo distress while their caregivers become overburdened. Religion and spirituality can be helpful for patients and their caregivers from diverse cultural backgrounds to cope with cancer. Though well established in palliative care, religion and spirituality are rarely incorporated into usual early oncological care. Despite the availability of heterogeneous literature examining the influence of religion and spirituality on cancer patients, there is notably limited research on this topic across the HNC trajectory. Therefore, this scoping review will map the evidence on the influence of religion and spirituality on HNC patients and their caregivers.</p> <p>Methods</p> <p>This scoping review was formulated following the guidelines of Joanna Briggs Institute (JBI) manual for evidence synthesis: Scoping Reviews and will be reported conforming to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR checklist). A comprehensive search strategy will include Embase, CINAHL, SCOPUS, and APA PsycINFO, The OPENGREU.EU and Google Scholar will be used as gray literature sources complimented by manual searches. Our eligibility criteria follow the Population, Concept and Context (PCC) framework. Patients aged ≥ 18 years diagnosed with HNC, and their informal, non-paid caregivers aged > 18 years will be included. The data will be extracted using piloted data extraction form on socio-demographic, disease related, treatment related factors and outcomes and the data will be analyzed through descriptive statistics and thematic analysis. The results will be narratively synthesized.</p> <p>Conclusions/Discussion</p> <p>This review will aim to explore existing literature and summarize the findings of studies that examine the influence of religion and spirituality among HNC patients and their caregivers and vice versa over a range of physical, psychological and social outcomes including quality-of-life. We also aim to identify existing research gaps. The findings of this review would generate evidence to better inform health care providers in countries and cultures in the management of patients diagnosed with HNC in usual oncological care with due consideration to caregivers.</p>
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Covering letter concerning your manuscript	<p>Dear Editor,</p> <p>COVER LETTER</p> <p>We intend to publish a manuscript entitled "Influence of religion and spirituality on head and neck cancer patients and their caregivers: a protocol for a scoping review" in your journal as a protocol.</p> <p>Head and neck cancers (HNC) are devastating, thus imposing a negative impact on the appearance of an individual as well as vital activities such as eating, swallowing, speaking, and breathing. Therefore, HNC patients undergo distress while their caregivers become overburdened. Religion and spirituality can be helpful for patients and their caregivers from diverse cultural backgrounds to cope with cancer. Though well established in palliative care, religion and spirituality are rarely incorporated into usual early oncological care. Despite the availability of heterogeneous literature examining the influence of religion and spirituality on cancer patients, there is notably limited research on this topic across the HNC trajectory. Therefore, this scoping review protocol will provide information on how we will map the evidence on the influence of religion and spirituality on HNC patients and their caregivers.</p> <p>This paper, when published, will add to the body of knowledge on religiosity and head and neck cancer as regards public health research, scholarship, policy, and practice.</p> <p>On behalf of all the contributors, Dr Kehinde Kanmodi will act as guarantor and will correspond with the journal from this point onward.</p> <p>This paper is not under consideration for peer-review or publication by any journal.</p>

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Thanking you.

Yours sincerely,

Dr Kehinde Kazeem Kanmodi

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Influence of religion and spirituality on head and neck cancer patients and their caregivers: a protocol for a scoping review

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ABSTRACT

Introduction:

Head and neck cancers (HNC) are devastating, thus imposing a negative impact on the appearance of an individual as well as vital activities such as eating, swallowing, speaking, and breathing. Therefore, HNC patients undergo distress while their caregivers become overburdened. Religion and spirituality can be helpful for patients and their caregivers from diverse cultural backgrounds to cope with cancer. Though well established in palliative care, religion and spirituality are rarely incorporated into usual early oncological care. Despite the availability of heterogeneous literature examining the influence of religion and spirituality on cancer patients, there is notably limited research on this topic across the HNC trajectory. Therefore, this scoping review will map the evidence on the influence of religion and spirituality on HNC patients and their caregivers.

Methods:

This scoping review was formulated following the guidelines of Joanna Briggs Institute (JBI) manual for evidence synthesis: Scoping Reviews and will be reported confirming to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR checklist). A comprehensive search strategy will include Embase, CINAHL, SCOPUS, and APA PsycINFO, The OPENGREU.EU and Google Scholar will be used as gray literature sources complimented by manual searches. Our eligibility criteria follow the Population, Concept and Context (PCC) framework. Patients aged ≥ 18 years diagnosed with HNC, and their informal, non-paid caregivers aged > 18 years will be included. The data will be extracted using piloted data extraction form on socio-demographic, disease related, treatment related factors and outcomes and the data will be analyzed through descriptive statistics and thematic analysis. The results will be narratively synthesized.

Conclusions/Discussion:

This review will aim to explore existing literature and summarize the findings of studies that examine the influence of religion and spirituality among HNC patients and their caregivers and vice versa over a range of physical, psychological and social outcomes including quality-of-life. We also aim to identify existing research gaps. The findings of this review would generate evidence to better inform health care providers in countries and cultures in the management of patients diagnosed with HNC in usual oncological care with due consideration to caregivers.

Keywords:

Head & Neck cancers, caregivers of HNC patients, Religion, Religiosity, Spirituality, Spiritual well-being

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INTRODUCTION

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Head and neck cancers (HNC) denotes a global public health challenge, ranking as the seventh most common cancer worldwide accounting for over 660,000 new cases and 325,000 fatalities annually [1]. Increasing incidence of HNC is attributed to rising prevalence of human papillomavirus infection and the consumption of smoked and smokeless tobacco, alcohol, and areca nut [2]. These cancers contribute to psychological distress and impaired quality of life as they involve organ-systems fundamental to appearance and vital functions of daily living such as eating, swallowing, speaking, breathing and appearance [3,4]. Therefore, in addition to disfigurement and disruption of daily activities, the diagnosis, treatment, and sequelae of HNC are sources of distress, stigma, and anxieties [3,4,5,]. Therefore, not only the sociability of HNC patients but their caregivers as well could get affected [6,7,8]. Improvements in treatment modalities and outcomes have resulted in increasing survivorship of HNC patients, and this has created unique physical, functional, and psychosocial needs for HNC survivors when compared to survivors of other cancers [9,10,11]. The physical and functional needs of HNC patients include pain management, ensuring nutrition due to dysphagia, wound care, oral care, speech and communication while psychosocial needs comprise management of psychological distress, fear of recurrence, uncertainties, information needs, addressing body image and self-esteem concerns, emotional support and empowerment [9,10,11]. Thus, the tasks of caregiving in these patients can be challenging and demanding for the caregivers, adding to a high caregiver burden. The effects of HNC are not limited to the victim alone, but its effects can affect the lives of caregivers' physically, psychosocially, and financially [10-13]. Therefore, studies have highlighted the critical need for HNC-specific supportive care interventions for survivors as well as their caregivers [14, 15,16].

Religion and spiritual beliefs can be very important to patients and their caregivers, regardless of their cultural backgrounds, religious traditions, and faiths [17]. Religion denotes a multidimensional, composite social construct that embraces a set of spiritual beliefs and practices manifesting at an individual level but also encompasses the institutional level through congregations which share specific beliefs, value systems, traditions, and socio-cultural contexts [17]. Spiritual care is well established in the palliative care of late/advanced stage cancer patients; however, it is rarely incorporated into usual oncological care at the time of diagnosis and treatment stages with curative intent [18-21]. There is voluminous research on the influence of religion and spirituality (R/S) in cancer patients, cancer care, and cancer

1 service utilization [22-28], consequent to surge of interest in the sociocultural contributors of
2 health and disease combined with the awareness on the importance of R/S to patients [29].
3 Thus, a large volume of heterogeneous literature examining the relationship between R/S and
4 patient reported outcomes measures (PROM) emerged in cancer research. Three meta-analyses
5 were conducted to identify the associations between R/S and PROM pertaining to physical,
6 mental, and social domains [18, 23, 24, 29]. Those meta-analyses further explored and
7 compared the strength of associations of those outcomes with dimensions of R/S broadly
8 categorized as ‘cognitive’, ‘affective’, ‘behavioural’ and ‘other’. The cognitive dimension
9 comprised specific R/S beliefs and perceptions, beliefs of fatalism, spiritual growth, causal
10 attributions, attitudes of *God is responsible for one’s health*, a perceived importance of
11 spirituality, images of God, etc. The behavioural dimension consists of religious practices,
12 private/public, meditation, mindfulness, prayers, whilst affective dimension encompasses
13 spiritual wellbeing, spiritual distress, spiritual coping, and spiritual uncertainties. R/S attributes
14 that could not be categorized into other three categories were included as ‘other’ which mostly
15 comprised composite indicators of R/S [18, 23,24,29]. Despite the need for further research,
16 the results generated from 1341 effects drawn from 44,000 cancer patients confirmed R/S was
17 significantly but modestly associated with physical, mental, and social health outcomes of
18 cancer patients. However, some dimensions of R/S were linked with more favorable outcomes
19 whilst others with poorer outcomes [29]. For example, affective dimension demonstrated the
20 largest effect size among all R/S dimensions but still modest with all health domains. In
21 contrast, behavior dimension showed a small association only with social health domain but
22 not with any other PROM domains [29]. Hence, the association between R/S and outcomes of
23 cancer patients becomes complex and variable with many unresolved issues.
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43 However, more favorable outcomes are reported by recent work on R/S and health outcomes
44 of cancer patients across cancer trajectory. Thus, a recent systematic review on prostate cancer
45 and spirituality revealed a remarkably positive relationship spanning to multiple positive
46 outcomes such as reduced stress and uncertainty, less regret in the choice of treatment,
47 functional and psychosocial well-being, empowerment of active patient participation in the
48 treatment and general coping with the disease [30]. Supporting this notion, a recent empirical
49 study conducted among a group of thyroid cancer patients found over 90% of patients
50 perceiving that religion was crucial in their lives, with a need for praying/meditation. The
51 patients also believed that religion offered a strong support in coping with the condition [31].
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2 In addition, the participants in the study were interested in recovering their inner spiritual
3 health and to strengthen the relationship with their families [31]. Therefore, cancer patients
4 may perceive a need for spiritual health to enhance their coping skills with family support.
5 Other studies have also explored the influence of religiosity and spirituality on caregivers of
6 patients with advanced cancers [31-32]. However, clear understanding is still lacking on how
7 patients seek to have religion and spirituality integrated into their patient-centred cancer
8 experiences; this is confounded by marked variation in methodological approaches to studying
9 those complex constructs [29,33,34].
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16 Pertinently, there is limited research on this topic across the HNC trajectory. The limited
17 evidence suggested positive outcomes such as better quality of life, post-traumatic growth and
18 less psychological distress among head and neck cancer associated with religion, religiosity,
19 and spirituality [35-40]. However, a recent qualitative exploration assessed how certain
20 religious beliefs, spiritual practices and fatalism may act as barriers for timely diagnosis of oral
21 cancers [41]. Our preliminary literature search using PubMed and Cochrane databases did not
22 yield any scoping review, systematic review or even a narrative review on influence of R/S on
23 HNC cancer trajectory. Against this backdrop, it is not clear how R/S influence HNC patients
24 and their carers across the HNC trajectory given the complexities and reciprocity involved.
25 Hence, it is timely to assess the size and scope of the available literature thus mapping key
26 concepts, types of evidence and gaps in research in this regard, through a scoping review [42].
27 The findings of this scoping review would generate evidence to better inform clinicians in
28 countries and cultures in the management of patients diagnosed with HNC in routine clinical
29 care with consideration to caregivers.
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43 The primary aim of this paper is to document the protocol of a proposed scoping review which
44 seeks to identify the dimensions in R/S used in HNC research, map the influence of R/S on
45 HNC patients and their caregivers and the research gaps existing in this domain.
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51 **METHODS**

52 **Title and Protocol Registration**

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54 The title and protocol of this proposed scoping review has been registered in the Open Science
55 Framework registry [<https://doi.org/10.17605/OSF.IO/6F4EU>].
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Methodological framework

This scoping review protocol was developed based on the Joanna-Briggs Institute (JBI) manual for evidence synthesis [43], which provides comprehensive guidance for developing scoping reviews, and it was underpinned by Arksey and O'Malley's [44] methodological framework for conducting a scoping review. Additionally, the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses–Protocol (PRISMA-P) checklist was used for the reportage of this protocol [45].

Stage 1 – Identifying the review question

The primary research question for the proposed review is “What is the influence of religion or spirituality on HNC patients and their caregivers?” Further, the primary research question was further divided into these specific sub-questions, based on the specific objectives of the proposed review:

1. What are the dimensions of religion and spirituality used in HNC research?
2. What is the influence of religion or spirituality on HNC patients and their caregivers on a range of physical, psychological, and social health outcomes including quality-of-life, health seeking behaviors, treatment outcomes, treatment compliance and survival?
3. What is the influence of cancer diagnosis and cancer trajectory experiences on religion and spirituality of HNC patients and their caregivers?
4. What are the existing research gaps in the area of HNC and religion or spirituality?

Stage 2 – Identifying the relevant studies (search strategy)

A comprehensive search will be conducted without a time restriction to identify relevant literature in the following electronic research databases: Embase, CINAHL, SCOPUS, and APA PsycINFO. Reference lists of included articles will also be examined to identify any additional literature. The OPENGREU.EU and Google Scholar (databases of grey literature) will be manually searched to complement the search strategy. Corresponding authors of the selected literature will be contacted if further information is required. The search strategy will be re-run 4 weeks prior to submission of the manuscript for publication to capture the latest literature.

1 The literature search strategy will be developed through an iterative process by a
2 multidisciplinary team including a librarian and health knowledge services expert, a consultant
3 oral and maxillofacial surgeon, a lecturer in pediatric dentistry, a consultant in community
4 dentistry, and two public health specialists with experience in conducting systematic reviews.
5 The review questions will be disaggregated into key concepts to facilitate comprehensive and
6 robust search strategies. In addition to Medical Subject Headings (MeSH) terms, appropriate
7 keywords will be identified through commonly used phrases stated in related literature to
8 capture constructs of religion, religiosity, and spirituality among HNC patients. First, the
9 search strategy will be developed for PubMed search and then the same strategy will be applied
10 with relevant modifications to the other databases. Our initial search strategy is as follows:
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19 Head OR Neck OR “Nasal Cavity” OR “Paranasal Sinus*” OR “Skull Base” OR Nasopharynx*
20 OR Salivary OR Craniopharynx* OR Neuroendocrine OR Hypopharynx* OR Larynx* OR
21 Trachea* OR Parapharynx* OR Oral OR Tongue OR Oropharynx* OR Odontogenic OR
22 Extramedullary
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25 AND
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27 Cancer* OR Malignant* OR Tumour OR Tumor OR Lesion OR Neoplas* OR Neuroblastoma
28 OR Meningioma OR Chondrosarcoma
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31 AND
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33 Religio* OR Spirit* OR Faith OR Multifaith OR “Mind-body” OR Meditation OR
34 Mindfulness OR "Spiritual coping" OR "Religious coping" OR Pray OR Pastor* OR Belief
35 OR Believe* OR Heal* OR yoga OR meditat*
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39 **Stage 3 – Study selection**

40 *Eligibility criteria*

41 This proposed scoping review will follow the population, concept, and context (PCC)
42 framework to define eligibility criteria, as recommended by the Joanna Briggs Institute (JBI),
43 to facilitate a more focused literature search [43].
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51 The population will include adults 18-years or older with a histologically confirmed diagnosis
52 of HNC which could be primary, recurrent, or metastatic deriving from paranasal air sinuses,
53 nasal cavity, oral cavity, salivary glands, pharynx, or larynx. Patients with brain, esophageal,
54 thyroid, and parathyroid cancers will be excluded as they are not considered to be typical HNC
55 cancers [46]. Furthermore, formal, and informal adult caregivers (18-years or older) of HNC
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patients will be included. The core concept refers to the effect of religion and spirituality on HNC patients and their caregivers. The sub concepts will include the relationships of cognitive, affective, behavioral, and other dimensions of religion and spirituality (as described in the introduction section of this paper) on self-reported and objectively assessed physical, mental, and social health outcomes and related constructs including quality-of-life. The context for this proposed review will include all countries and study settings such as primary care, secondary care, tertiary care, hospices, home based care, community settings (Table 1).

Table 1 PCC framework for developing the review’s eligibility criteria

Criteria	Characteristics
Population (P)	Adults with a histologically confirmed diagnosis of HNC which could be primary, recurrent or metastatic deriving from paranasal air sinuses, nasal cavity, oral cavity, salivary glands, pharynx or larynx
Concept (C)	The effect of religion and spirituality on HNC patients and their caregivers
Context (C)	All countries

In addition to the use of the PCC framework, study design, language of publication, and publication type will also inform the review’s eligibility criteria. Only those qualitative studies (ethnographic studies, phenomenological studies, etc.), quantitative studies (clinical trials (randomized and non-randomized), cross-sectional studies, case-control studies, and cohort/longitudinal studies), mixed-methods studies published in English and as a peer-reviewed journal article or thesis or book chapter or full-length conference paper will be included in the proposed review.

Defining Religion, Religiosity and Spirituality

Below are the definitions of religion, religiosity, and spirituality in this proposed scoping review.

Religion is a multidimensional construct that includes beliefs, behaviors, rituals, and ceremonies that may be held or practiced in private or public settings but are in some way

1 derived from established traditions that developed over time within a community. Religion is
2 also an organized system of beliefs, practices, and symbols designed to facilitate closeness to
3 the transcendent, and to foster an understanding of one's relationship and responsibility to
4 others in living together in a [47,48]
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8 Spirituality is defined as set of all emotions and convictions of a nonmaterial nature with the
9 assumption that there is more to living than can be perceived or fully understood, referring to
10 questions such as the meaning of life, not limited to any type-specific religious belief or
11 practice. Spirituality includes both a search for the transcendent and the discovery of the
12 transcendent and so involves traveling along the path that leads from non-consideration to
13 questioning to either staunch non-belief or belief, and if belief, then ultimately to devotion and
14 finally, surrender. Thus, our definition of spirituality is very similar to religion and there is
15 clear overlap [47,48].
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23 *Literature Selection Process*

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26 Identified records will be uploaded into the Rayyan web tool for record management [49] and
27 the duplicates will be removed. Titles and abstracts will be screened based on the inclusion
28 and exclusion criteria by two independent reviewers. Disagreements in literature selection de-
29 cisions will be resolved by a third reviewer. The same procedure will be carried out with the
30 full-text level screening. The record review and selection process will be illustrated using a
31 PRISMA flow diagram [50].
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38 **Stage 4 – Charting the Data**

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41 Data will be extracted and entered into a bespoke data extraction sheet developed by the review
42 team. Data items of interest were structured based on the review's eligibility criteria and the
43 objectives of the study. From each selected literature, the following information will be
44 extracted: author names, year of publication, title of literature, study location, objectives of the
45 study, study design, study setting, study period, study population, sample size and sampling
46 technique, data collection method including measurement of religion/ religiosity or spirituality,
47 reported effect of religion/ religiosity or spirituality on construct being measured, and
48 limitations. To ensure quality of the data extraction process, data from the first five documents
49 will be extracted as a training stage by all reviewers independently and the results will be
50 compared. The data of the remaining selected literature will be extracted by two independent
51 reviewers. These two sheets will be compared, and any inconsistencies will be discussed and
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adjudicated by a third reviewer if required. In case further information or clarification is needed concerning the extracted data, the corresponding authors will be contacted.

Table 2 Study characteristics

Heading	Data extraction
Study details	Author, Year, Country
Study design	Qualitative, case study, observational, cross-sectional, case control, etc
Participant characteristics	Study population, sample size

Table 3 Measurements used, reported effect on HNC and limitations of studies

Heading	Data extraction
Study details	Author, Year, Country
Measurements	Data collection method including measurement of religion/ religiosity or spirituality
Findings	Reported effect of religion/ religiosity or spirituality on construct being measured
	Reported influence of cancer diagnosis and cancer trajectory experiences on religion and spirituality
Limitations	Reported limitations in studies

Stage 5 – Collating, Summarizing, and Reporting of Results

The data charted in this scoping review will be collated and summarized in themes, and presented as texts, charts, and tables, using a narrative synthesis approach. Findings of each included study will be presented with key characteristics such as first author, year of publication, geographical location, study design, sample size and sampling method, etc. (online

1 supplemental files 1 & 2). Results will be reported according to the review questions. To
2 answer the first question (What are the dimensions of religion and spirituality used in HNC
3 research?) results will be presented as a narrative review with regard to affective, behavioural,
4 cognitive, and other such as multidimensional psychometric scales. Further details will be
5 provided under ‘Measurements’ of the Table 3.
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10 Answers to the second (What is the influence of religion or spirituality on HNC patients and
11 their caregivers on a range of physical, psychological and social health outcomes including
12 quality-of-life, health seeking behaviors, treatment outcomes, treatment compliance and
13 survival?) and the third (What is the influence of cancer diagnosis and cancer trajectory
14 experiences on religion and spirituality of HNC patients and their caregivers?) questions will
15 be described as a narration. Additionally, this information will be presented in Table 3 under
16 ‘Findings’.
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23 Identification of the existing research gaps and limitations in R/S relation to HNC to answer
24 the fourth question (What are the existing research gaps in the area of HNC and religion or
25 spirituality?) Given the limited yet evolving research arena on the influence of R/S on HNC
26 trajectory, it is important to make a note of existing limitations and research gaps to influence
27 future research work with better translational value. This will encompass mining into study
28 designs, the complex reciprocal relationship between R/S and HNC trajectory, the internal and
29 external validity of study findings, and controlling for confounding factors such as
30 socioeconomic status, disease-related factors, and treatment-related factors. For example,
31 cross-sectional study designs reflect a snapshot of a single time point instead of a sequence of
32 events (whether R/S variables or changes in R/S variables predict health outcomes across the
33 cancer trajectory), thus necessitating longitudinal follow-up studies for more conclusive
34 evidence. By taking stock of existing research, gaps in the perceived influence of patients and
35 caregivers on integrating R/S into usual HNC care will be identified.
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48 The potential limitations of evidence synthesis method of this scoping review will also be
49 discussed.
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52 *Expected Outcomes*

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55 The effect of religion, religiosity, or spirituality on the following domains of the patients
56 diagnosed with HNC and their caregivers will be described in the proposed scoping review:
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1. Quality of life
2. Survival
3. Physical well-being
4. Psychological well-being
5. Social well-being
6. Posttraumatic growth
7. Adjustment
8. Appearance concerns
9. Cancer diagnosis
10. Fatalism
11. Treatment compliance
12. Demoralization
13. Depression
14. Anxiety
15. Suicidal ideation
16. Sleep disorders
17. Fatigue
18. Timely access of health care services
19. Any other outcome not mentioned before.

DISCUSSION

The primary research question and aim of this scoping review are to explore and expound the multi-faceted influence of religion and spirituality among HNC patients and their caregivers, across an array of outcomes ranging from quality-of-life to health care seeking behavior. Further, we shall be dissecting this influence along cancer trajectory from diagnosis to palliative care with the special emphasis to usual HNC oncological care. Reciprocally, we aim to explore the influence of cancer diagnosis and cancer trajectory on religion and spirituality of HNC patients and their caregivers. We shall be attempting to identify and compare the effects of dimensions of religion and spirituality i.e. Cognitive, affective, behavioural, and other on domains of health and other outcomes in HNC trajectory. Given the aero digestive anatomic involvement of the tumor as well as its treatment affecting the appearance and vital activities of daily living such as eating, speaking, breathing, and swallowing, inevitably HNC

1 patients need to cope up with the devastation, discomfort, and distress whilst their carers need
2 to grapple with challenging task of care giving. Hence, there is an emerging need to explore
3 the potential of religion, religiosity and spirituality could offer to relieve the suffering of HNC
4 patients and their overburdened care givers. Due to the meticulously crafted eligibility criteria
5 and the wide range of terms proposed for the search strategy this scoping review would
6 generate a wealth of evidence unravelling not only the complexities in conceptualizing,
7 defining, and measuring the composite constructs of religion, religiosity, and spirituality but
8 their complex influence on HNC patients and their caregivers highly confounded by countries,
9 cultures, and health care systems. We shall identify existing knowledge and research gaps and
10 challenges in the milieu of influence of religion, religiosity, and spirituality on HNC patients
11 and their caregivers. Our findings will shed light into better approaches in integrating religious
12 and spiritual care to patient-centered cancer care experience of HNC patients and their
13 caregivers.
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27 **LIST OF ABBREVIATIONS**

28
29 HNC – Head and Neck Cancers

30
31 DSES - Daily Spiritual Experience Scale

32
33 PRISMA-ScR - Preferred Reporting Items for Systematic Reviews and Meta-Analyses
34 extension for Scoping Reviews

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36 PRISMA-P - Preferred Reporting Items for Systematic Reviews and Meta-Analyses–Protocol

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38 MeSH terms - Medical Subject Headings terms
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47 **DECLARATIONS**

48 **Ethics and dissemination**

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50 This scoping review is not subjected to research ethics board approval as there will be no direct
51 participant contact or data collection at an individual level. Dissemination of the findings will
52 include the publication of a scoping review manuscript in an open-access journal to reduce
53 barriers and provide ease of access to a wider stakeholder audience. Knowledge translation
54 will further include presentations at national and international conferences with clinical
55 audiences.
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Patient and public involvement

Patients, care givers and the public were involved in the designing of this scoping review protocol as patient and caregiver experience in religion, religiosity and spirituality in cancer trajectory is fundamental to exploring and expounding their relationships.

Consent for publication

Not applicable.

Availability of data and materials

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

Competing interests

None declared.

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Authors' contributions

Review question was identified by IP and SNR. Search strategy was drafted by IP & MS and was modified by SNR, SK, KKK, SaR, RJ & SrR. The study was designed by MS, IP & SSD and modified by KKK and RJ. Manuscript was drafted by SSD, MS & IP. All authors substantially contributed to the revision of the manuscript and approved the final version.

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Dear Editor,

COVER LETTER

We intend to publish a manuscript entitled “**Influence of religion and spirituality on head and neck cancer patients and their caregivers: a protocol for a scoping review**” in your journal as a protocol.

Head and neck cancers (HNC) are devastating, thus imposing a negative impact on the appearance of an individual as well as vital activities such as eating, swallowing, speaking, and breathing. Therefore, HNC patients undergo distress while their caregivers become overburdened. Religion and spirituality can be helpful for patients and their caregivers from diverse cultural backgrounds to cope with cancer. Though well established in palliative care, religion and spirituality are rarely incorporated into usual early oncological care. Despite the availability of heterogeneous literature examining the influence of religion and spirituality on cancer patients, there is notably limited research on this topic across the HNC trajectory. Therefore, this scoping review protocol will provide information on how we will map the evidence on the influence of religion and spirituality on HNC patients and their caregivers.

This paper, when published, will add to the body of knowledge on religiosity and head and neck cancer as regards public health research, scholarship, policy, and practice.

On behalf of all the contributors, Dr Kehinde Kanmodi will act as guarantor and will correspond with the journal from this point onward.

This paper is not under consideration for peer-review or publication by any journal.

We did not get any financial support for this study.

We have no competing interests to declare.

We did not use any pre-published information material in this study.

We hereby transfer, assign, or otherwise convey all copyright ownership, including any and all rights incidental thereto, exclusively to the journal, in the event that such work is published by the journal.

Thanking you.

Yours sincerely,



Dr Kehinde Kazeem Kanmodi