

Literature Review: The Self-Management Of Diet, Exercise And Medicines Adherence Of People with Type 2 Diabetes Is Influenced By Their Spiritual Beliefs (words 2,312)

Abstract

This article discusses how a literature review found that the spirituality of patients with type 2 diabetes can significantly impact their approach to their diabetes treatment plans. The review found that although patients' spirituality can give strength to cope with a chronic disease, it may result in poor diabetes care if patients fatalistically abandon self-management if they believe it is their fate, or God(s) will for them to have diabetes. Key themes found were (1) how spirituality/religion influenced the self-management behaviours of diet and exercise (2) how the use of complementary alternative medicine and practices affected diet, as well as medicines adherence (3) how ethnicity and gender impact self-management (4) how coping styles affect self-management and a 'future-orientated focus' may aid self-care. Finally, a model is outlined that can be used in clinic for spiritual assessment of diabetic patients.

(139 words)

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Introduction

In the UK, the National Institute of Health and Care Excellence (2014 p8) states that good diabetes care should support the self-management, attitudes and beliefs of patients. The UK Nursing and Midwifery Council (NMC) also recommend assessment of patients' spiritual beliefs as part of a comprehensive plan (NMC, 2009 p113). Diabetic patients are predominantly managed in primary care, with specialist clinics seeing complex patients. Standards of care are set by the Quality Outcomes Framework (QOF) (NHS Employers, 2016), which remunerates GP Practices for care given. As QOF does not request clinicians to ask patients about their spirituality, it is unlikely to be addressed. In addition, clinicians may feel there is not enough time to assess this (Brush and Daly, 2000), may feel inadequately trained to discuss spirituality (McSherry, 2010 p24), and feel that asking about patients' spiritual beliefs may lay them open to criticism (Beckford and Gammell, 2009).

Research shows the spirituality of people with type 2 diabetes (T2D) can have profound influence on their diet, exercise and medicines adherence (Polzer and Miles, 2007). This is not unique to diabetes, as empirical evidence shows a positive link between spirituality and health (Miller and Thoresen, 2003; Gall and Grant, 2005; Koenig et al., 2012). Spirituality can influence how patients manage chronic illnesses (Ahmedani et al., 2013), and their medicines adherence/management (Koenig, 2004). Unless asked, patients may not discuss this with clinicians, yet their spiritual beliefs may be a reason they are not engaging with treatment plans (Amirehsani, 2011). For some patients, their spirituality becomes significant when facing ill health (Royal College of Nursing (RCN), 2011).

A literature review was undertaken as a result of patients within primary care clinics indicating that their spiritual beliefs were the reason why they did not adhere to a healthy diet or take exercise; that diabetic medicines may be omitted if they were having complementary treatment that day (e.g. hypnosis); and that a 'purging de-tox diet' as part of a spiritual package including yoga would 'cure diabetes' and so abandoned diabetes medicines. These patients had not discussed this with a health professional before as they didn't think it was relevant, thought they might be 'told off', or felt they wouldn't be understood.

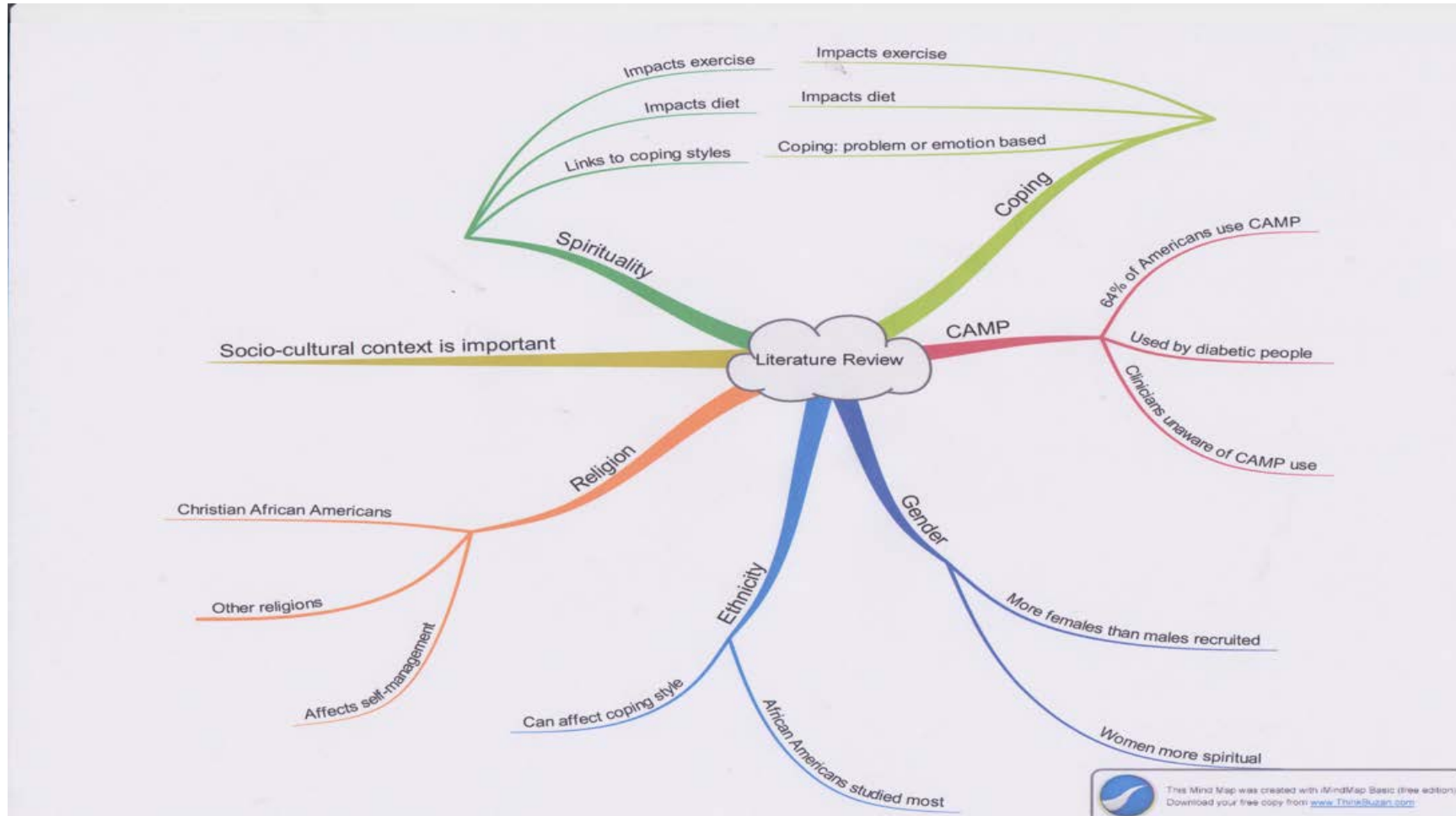
Subsequently, discussion at a local diabetes nurse network meeting revealed that nurses rarely discussed spirituality as they were unaware it could impact patients' engagement with treatment plans, and concern as to how to open this topic with patients. As a result, a literature review was undertaken to find out what was known about spirituality impacting diabetic patients' self-management. This paper will outline the key themes from the literature review, showing that patients' spirituality can influence the self-management behaviours of their T2D. Spiritual models are also identified that clinicians can use to address this aspect with patients.

Method

This review included published and unpublished data; academic books and journals; websites; policy documents/reports; and emails from experts in the field. The Boolean operator 'AND' was used in the search to connect the term 'type 2 diabetes' with the term 'spirituality'. No date restrictions were placed, and over seventy databases were accessed. Analysis of these papers began by creating a mindmap (Figure 1).

Figure 1: Mindmap

CAMP= complementary and alternative medicines and practices



Results

The adapted PRISMA diagram (Moher et al. 2009) summarises the papers read (Figure 2). Thirty-seven were read, and thirteen viewed as key papers. The vast majority of studies were from America, with 2 from Australia; 5 from Britain; 4 from south-east Asia; 1 from Sweden.

Figure 2: An Adapted PRISMA diagram

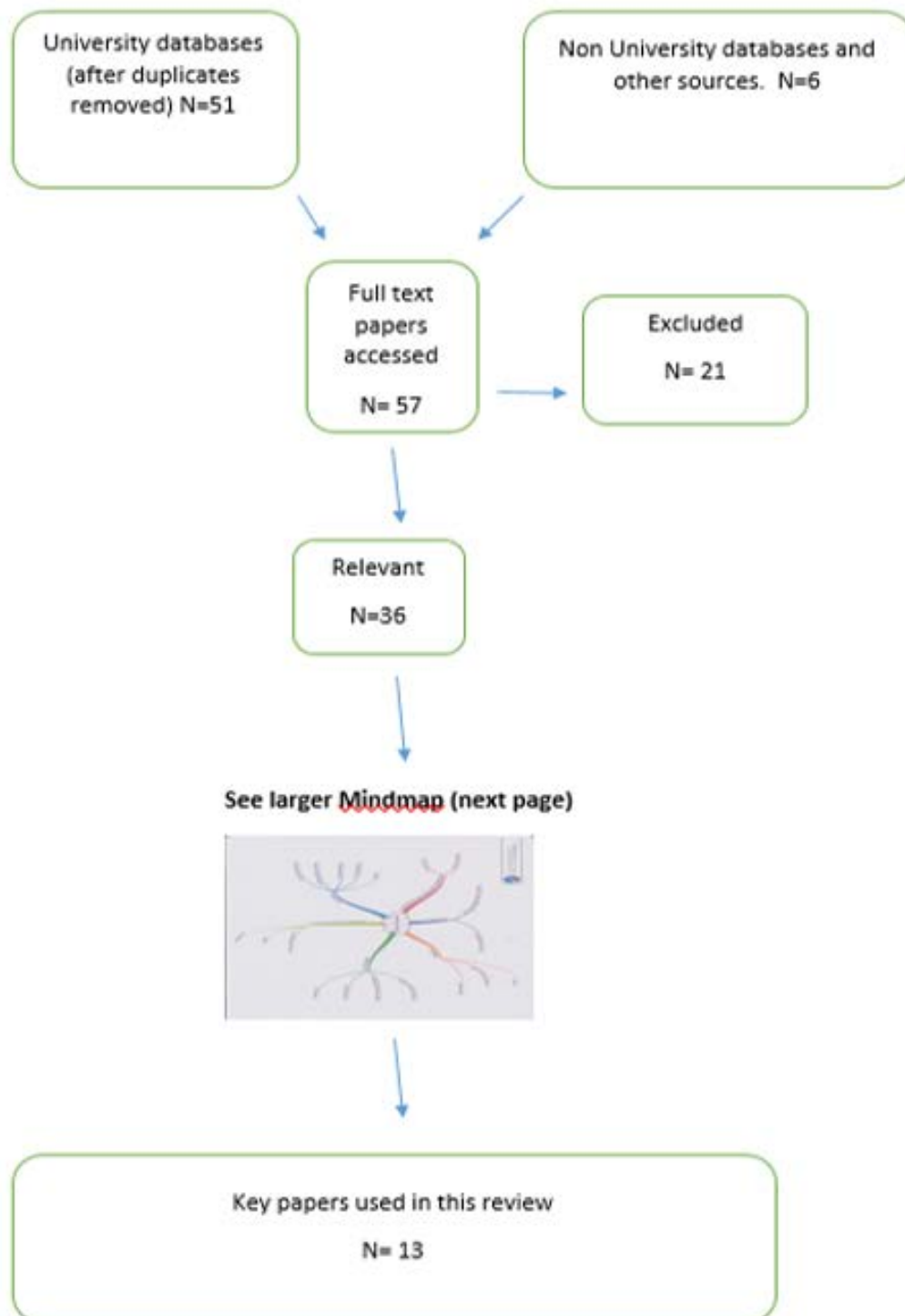


Table 1: Key themes of Literature Review

Spirituality influenced by	Spirituality impacts T2D
Age	Diet
Ethnicity	Exercise
Gender	Medicines adherence
	Ability to cope with T2D
	Patients adding complementary alternative medicines and practices to prescribed treatment

The terms 'spirituality' and 'religion'

Chuengsatiansup has stated 'health and policy experts lack common language in addressing spirituality' (2003, p4), and this was evident in this literature review. The term 'spirituality' was understood and analysed differently in each study. Papers may claim to analyse spirituality, but really are focusing on one religion due to the participant sampling methods employed. The papers reviewed were separated into concepts of spirituality and religion (see Mindmap) but 24 papers found showed while these concepts may differ they are most often inter-related. Although being religious (religiosity) involved spirituality, spirituality may not involve religiosity (Swinton, 2010). In the literature, spirituality was broadly defined as the awareness of the inner self that was shaped by human experience and practice, sometimes highlighted at times of difficulty, and might include awareness/worship of a higher power/Deity (Cordova, 2011; Harris, 2008; Hjelm et al., 2005; Polzer and Miles, 2007). In this review, the term spirituality is used to incorporate any spiritual or religious belief and/or practice.

Spirituality/religion affects self-management of diet and exercise

Studies by Jones et al. (2006), Polzer & Miles (2007), Polzer et al. (2007), Polzer Casarez et al. (2010) and Lundberg & Thrakul (2013) demonstrated how spirituality impacts T2D. Polzer & Miles (2007) found Christian African Americans with T2D had three typologies. Group 1 took responsibility for self-management, and viewed 'God-in-the-background' as a collaborative supporter. An equal power balance was perceived between the person and God: the person as the major actor, and God assisting them to take responsibility and perform good self-management. Group 2 saw 'God-is-in-the-forefront' as the major actor, themselves as submissive to his authority. Positive outcomes in health were viewed as God's will rather than self-management, and faith believed to be more important than self-management. (I had found this belief had been evident in some of my British patients). Group 3 saw 'God-is-the-Healer', believing if they had enough faith, self-management was irrelevant because God would heal them.

The study by Polzer Casarez et al. (2010) among Christian African Americans likewise identified spirituality may reduce efforts of self-management of attention to diet, doing exercise and taking medications for T2D. Jones et al. (2006) research found similar

typologies amongst Christian African Americans with T2D using CAMP. Group 1 used prayer and faith; Group 2 believed God assists healthcare providers; Group 3 believed in links between faith and treatment, but none abandoned treatment and relied on God alone as in the study by Polzer et al. (2007).

Research by Lundberg & Thrakul (2013) on Muslim/Buddhist women also found religion aided coping; spiritual practices aided diet and exercise; and support from family helped. However, medical advice could be ignored in favour of spiritual practice, e.g. Muslims fasting during Ramadan. Muslims see illness as atonement for sin, and Buddhists believe illness the result of behaviour in a previous life. They found whilst some endeavoured health-promoting behaviour despite these beliefs, other were resigned to their fate.

Complementary alternative medicine and practices (CAMP) linked to spirituality, and affects diet and medicines adherence

This review found CAMP was used by American people with T2D. The American-based National Institutes of Health (2014) identifies around 40% of Americans use CAMP such as new age practices, meditation, acupuncture, chiropractic, naturopathy, herbs, diet, guided imagery, hypnotherapy and many others. If prayer is included this rises to 62% (Jones et al. 2006; Barnes et al. 2004). Reasons for using CAMP are complex, but may involve cost, traditional beliefs. Eleven papers specifically researched CAMP, including prayer, diet based therapies, spiritual healings, massage, meditation and vitamin use (Jones et al., 2006). CAMP was used more by diabetics than non-diabetics (Egede et al., 2002); and utilized more by women than men (Jones et al., 2006).

Amirehsani (2011) found 50% of Latinos/Hispanics used herbs/plants alongside prescription medicines: 77% did not advise clinicians of use of herbs/plants (which may interact with medicines); and 72% did not advise clinicians they were using a combination of CAMP/prescription medicines. In addition, some patients altered their prescription medicines the days they took plants/herbs. Around 30% believed combinations of faith and medicines were effective; and 71% wanted doctors to use/prescribe prayer. Participants believed prayer helped prescribed/alternative medicines to work; coping; and God guiding their doctors. Meetoo & Meetoo (2005) also identified British patients not informing clinicians of CAMP, fusing prescribed treatment with bitter melon, okra and grapefruit, but did not inform clinicians. Grapefruit juice may interact with statins and calcium channel blockers that many patients with T2D will be taking (NHS Choices, 2015).

Ethnicity and gender

Most studies were American, targeting African Americans because they are considered a spiritual people (Polzer and Miles, 2007). Hjelm et al. (2005) analysed contrasting beliefs of Swedish, Arabic, and Yugoslavian men: health centred on being employed, economically independent and functioning sexually. The non-Swedes claimed supernatural factors and stress have negative health effects. Some Arabic participants believed having diabetes may be Allah's will but had healthy diets and exercised, and avoided smoking. Although the Yugoslavians described health as 'the most important thing in life', their diet was poorer,

they exercised less and smoked more than the Arabs and Swedes. Some studies identified women as more likely to use spiritual practices (Jones et al., 2006; Decoster and Cummings, 2005).

Coping

Religiosity/spirituality sometimes impacted coping mechanisms in complex ways, affecting self-management of diet and exercise. This was evident in American Christians (Cordova, 2011); Thai Buddhists (Thinganjana, 2007); and Arab Muslims in Sweden (Hjelm et al. 2005).

‘Emotion Based Coping’ versus ‘Problem Based Coping’

Decoster and Cummings (2005) analysed coping, gender and race: coping styles related to gender and race were either emotion-based, or problem-based. Emotion-focused coping aims to reduce stress/anxiety, involved prayer and faith in God, and was associated with poorer T2D control, and utilised by females, and African Americans. Problem-focused coping seeks to change the situation, rather than adapt to it, and was utilized by White Americans and males. Some coping styles resulted in reduced Hba1c (Harris 2008); better depression control (Lynch et al., 2012); increased exercise (Rovner et al., 2013); and reduced blood pressure (Newlin et al. 2003).

Fatalism Leads to Poorer Diabetes Control

Meetoo & Meetoo (2005) found British Asian and Caucasians participants believed stress and hereditary factors were the main cause of T2D, and links to the belief of fatalism. The diabetes fatalism scale by Egede and Ellis (2010) used with American Black and White participants found high scores related to poorer spiritual coping. Spiritual coping related to a belief of diabetic outcomes caused by of a Higher Power. This was linked to decreased coping, and greater fatalism. A higher fatalism score, and therefore poorer coping, was correlated to poorer self-management, poorer attention to diet, poorer diabetes knowledge and worse diabetes control.

Future Focus Results in Better Diabetes Diabetes Control

Rovner et al. (2013) analysed African Americans with T2D, assessing present-time-orientation, and future-time-orientation with religiosity, exercise, checking blood glucose and reading food labels. Time-orientation relates to participants’ focus on short or longer term consequences, with future-time-orientation participants relating current health behaviours with future disease progression. 46% of participants engaged in all three self-management behaviours. Those reading food labels and checking blood glucose were future-time-orientated, but no more religious. Participants engaging in exercise also had future-time-orientation and significantly higher religiosity, although clear reasons for this were not known.

Limitations of studies

Caution is needed comparing outcomes of American with British diabetics as healthcare is paid for differently in each country. American healthcare is funded by employers, individual insurance, or Medicaid (a government funded means tested program). Poorer American patients may have no insurance, and CAMP was used alongside, or as an alternative to

prescribed medicines (Popoola, 2005; Utz et al., 2006; Amirehsani, 2011; Bhattacharya, 2012;). By contrast, British people receive free healthcare.

Discussion

This review found that patients’ spirituality could result in reduced self-management of diet, exercise, and affect medicines adherence, leading to poorer diabetes control. On the positive side, belief in God gave some people greater resilience and strength to cope with having T2D. Just as patients cope with disease processes individually, likewise a spiritual response to illness is multi-factorial.

Clinical Practice

Clinicians however may be anxious about addressing patients’ spirituality, fearing offending patients. It is important for clinicians to reflect on how their own spirituality (which may range from atheism to strong religious belief) may influence their understanding patients’ spirituality. Clinicians can facilitate discussion with patients about how their spirituality influences their health management (RCN, 2011), by asking open ended questions (See Table 2). Appropriate discussions will not involve clinicians promoting their own spiritual beliefs to patients.

Table 2: Open Questions for Spiritual Assessment

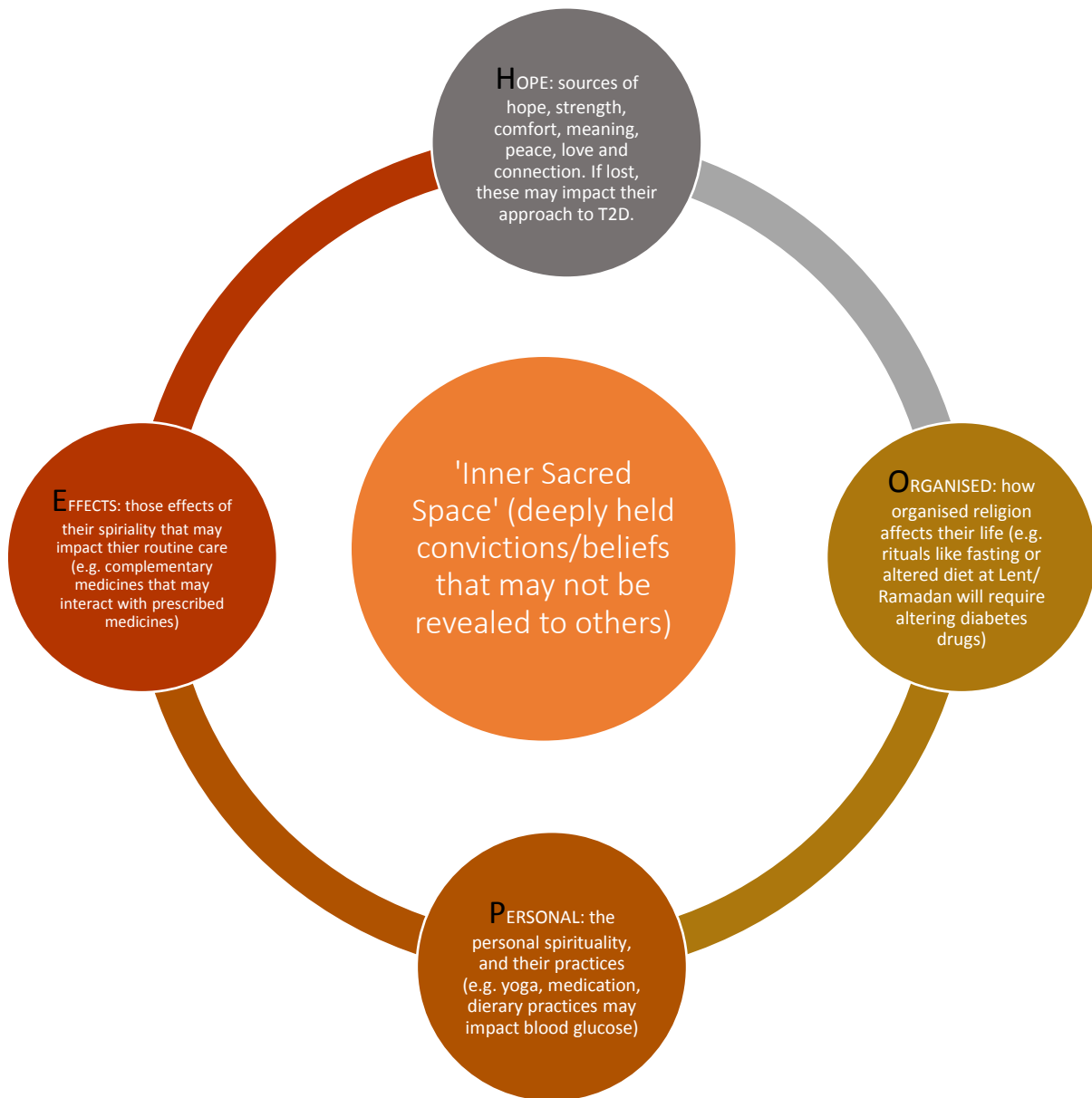
Examples of Open Questions
What is it that gives you strength to cope with diabetes?
Are there any particular beliefs or ways of coping that have helped you in the past?
Do you have any significant beliefs or practices that help you cope with the demands of having diabetes?

Most patients will appreciate clinicians seeking to understand their world, and will make it clear if they are comfortable (or not) to talk about their beliefs. A good rapport is necessary, with the clinician listening and responding in a compassionate manner. There are a variety of simple models available (Table 3). The HOPE model (Figure 3) is useful due to its simplicity, and can be used to address facets of diabetes care.

Table 3: Some Spiritual Models

Spiritual Models	Authors
FICA	Pulchalski and Romer, 2000; 2009
SPIRIT	Maugens, 1997
HOPE	Anandarajah and Hight, 2001

Figure 3: Adapted HOPE model (Anandarajah and Hight, 2001)



Implications for Research

This review found that the spirituality of T2D patients influenced their self-management behaviours of diet, exercise and medicines adherence. However, most studies were with American White or African American Christians. Further research needs to explore how the spirituality of other racial, religious and cultural groups may affect the self-management behaviours of T2D. Quantitative and qualitative data will assist analysis of how patients' spirituality may impact self-management, lifestyles, outcomes, and the meanings patients attach to experiencing and living with a chronic illness. This will assist clinicians to think broadly in terms of patient's life when giving targeted individualised care.

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