

*Systematic Review Article*

**Factors influencing sexual behaviour between tourists and tourism employees: A systematic review**

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**Abstract:**

**Background:** Increased travel abroad has a significant impact on the incidence and prevalence of Sexually Transmitted Infections (STIs). Previous reviews have focused on the knowledge, attitudes and behaviour of tourists and acquisition of STIs. Less is known about the impact on tourism operators in countries visited by tourists. The aim of this review is to ascertain factors influencing sexual behaviour between workers in the tourism industry and tourists; exploring the prevalence of sexual behaviour between the two populations, their perceptions of sexual risk while engaging in sexual activities and the knowledge of tourism operators regarding STIs.

**Methods:** A systematic review was conducted. Database searches were performed in Medline/Ovid, EMBASE, Cochrane library and CINAHL for studies published between 2000 and March 2016. Grey literature searches were completed in the NHS database and Google Scholar between 2000 and December 2013. Papers were independently selected by two researchers. Data were extracted and critically appraised using a pre-designed extraction form and adapted CASP checklist.

**Results:** The search identified 1,602 studies and 16 were included after review of the full text. Studies were conducted in nine countries. Findings suggest that STI knowledge, attitude and practice were fairly good among tourists and tourism workers, but there is a need for pre-travel advice for travellers, especially those travelling to low and middle-income countries. Greater importance was given to tourists than to tourism operators and locals interacting with tourists. Studies suggest that as a group both tourist and tourist workers were likely to engage in sexual activities. Overall, both condom use and STI screening were low, among tourists as well as tourism operators. Furthermore, studies reported links between drug and alcohol use and sexual behaviour and risk taking.

**Conclusion:** Although less research appeared to have been conducted among tourism workers than tourists, it does demonstrate the need for education, training and promotion of travel medicine. STI screening, pre-travel advice, travel history in terms of contracting STIs and safe-sex awareness-raising are needed. More and better sexual health education and relevant tourism policies are needed globally.

**Keywords:** sex, tourism workers, travel health, sexually transmitted infections, HIV

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## Background

Sexually transmitted infections (STIs) including the Human Immunodeficiency Virus (HIV) are a major threat to global public health [1]. A highly vulnerable population in acquiring and spreading STIs are tourists. Tourists are defined as ‘people travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes’ [2]. The term ‘tourism worker’ refers to a wide-range of people providing services in the tourism industry.

Tourists, who willingly participate in sexual intercourse while travelling, are not only highly prone to get infected with STIs [3] but they may introduce infections to previously unaffected parts of the world [1]. Tourists are more likely to engage in casual sexual relationships while travelling abroad because of the opportunity to escape from their society’s idea of acceptable behaviour [4]. Hence, the majority of research previously conducted in this field focused on tourists and the impact of interventions to change their behaviour.

An important factor that increases the risk of acquiring STIs in tourists is the prevalence of STIs in the local population i.e. locals and tourism operators in the destination country [4]. However, there has been very little research focusing on the contact population of tourism operators and their knowledge, attitudes and sexual behaviour. Tourism operators comprise the various representatives and workers in the tourism industry [5].

An important preventative measure in reducing STIs among tourists is to include tourism operators in the interventions aimed at reducing risky sexual behaviour, to make sure such interventions are appropriately designed. There is a paucity of literature on the factors that influence this behaviour. The objective of this review is to ascertain what factors influence sexual behaviour between tourism operators and tourists by exploring the prevalence of sexual behaviour between the two populations, perceptions of sexual risk while engaging in sexual activities and the knowledge of tourism operators regarding STIs.

## Methods

A systematic review was conducted using a review protocol developed by the research team following PRISMA guidelines [6]. Quantitative, qualitative and mixed-methods studies focusing on sexual behaviour between tourists and tourism operatives were eligible for inclusion. This review draws on research conducted on the knowledge, attitude and practice of tourists and tourism workers regarding STIs (including HIV) and measures used to prevent infection. Studies conducted in any country were considered.

## Search

A comprehensive literature search was conducted to identify relevant studies and background information. Database searches were conducted in Medline via Ovid, EMBASE, Cochrane library, and CINAHL for published literature. Citation lists from included studies were searched along with grey literature from the NHS database and Google Scholar. Searches were carried out October-December 2013 with an updated search for the published literature only in March 2016. Papers published in English between 2000 and March 2016 were included. Search terms were developed with assistance from a librarian to capture the key concepts of the review: sexual behaviour, tourists and tourism workers. All relevant study types were included apart from individual case studies.

## Data extraction

Papers were independently selected by two researchers (AS and RB) and consensus agreed for final inclusion. Data extraction forms were designed to collect all relevant data from both qualitative and quantitative studies. Data extraction included: the study’s objectives, design and outcomes, sampling techniques, ethical considerations, data collection and analysis methods, findings, and study limitations. Disagreements were resolved by discussion.

## Quality assessment

In order to comprehend the validity, generalizability, biases, strengths and weaknesses of the papers selected on the basis of titles and abstract assessment, the quality of each paper was critically appraised by two researchers. A critical appraisal checklist was developed from the Critical Appraisal Skills Program (CASP) checklist [7]. The checklist appraises aims and objectives, appropriate methodology and study design, data collection methods, data analysis, findings, contribution of the study and whether the study is eligible for the review.

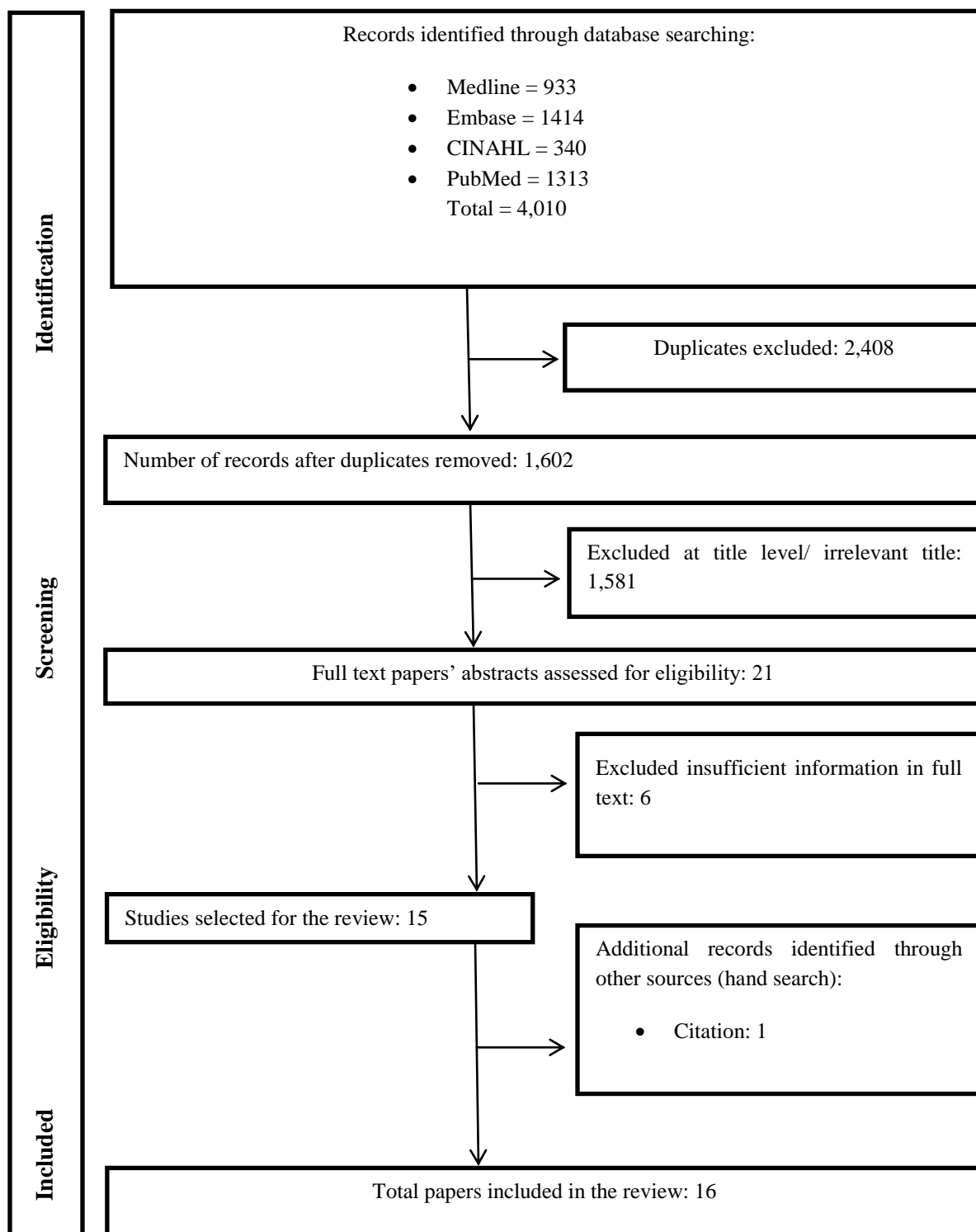
## Data synthesis

The studies were read several times to distil common themes. Due to the heterogeneity of the studies, a meta-analysis was neither possible nor appropriate [8]. Data were synthesized using the thematic synthesis method [9].

## Results

A total of 16 papers were included in this review (Table 1). The database search provided a total of 4,010 papers. Duplicates were removed using the Mendeley Desktop 1.11 software resulting in 1,602 papers. After screening for relevant titles 21 studies were selected. Six studies were removed after review of full text due to insufficient information and one additional study was included from hand-searching (Figure 1).

**Figure 1: PRISMA Flowchart for identification and selection of papers for review**



**Table 1: Characteristics of included studies**

<b>Author/ Year Reference</b>	<b>Year study</b>	<b>Location/ Setting</b>	<b>Study design</b>	<b>Sample size &amp; Sampling Method</b>	<b>Mode data collection</b>	<b>Outcome measured</b>
<b>Hennick et al. 2000 (17)</b>	1996	South of England	Qualitative and Longitudinal study	60 seasonal workers, self-selection, snowballing and purposive sampling	One to one semi-structured interviews using a pre-designed questionnaire, follow up	Sexual behaviour & contraceptive use among seasonal workers in holiday centres
<b>Kapiga et al. 2002 (18)</b>	2000	Moshi, Tanzania	Quantitative study	312 female bar and hotel workers Sampling methods not specified	Interviews through structured questionnaire and medical examinations	Prevalence and risk factors HIV female worker in bars/ hotels
<b>Cabada et al. 2002 (29)</b>	2000	Lima, Peru	Mixed Study	442 male and female travellers aged 15-51 on flights to US or Europe	Anonymous written questionnaires	Sexual risk factors of travellers to Peru
<b>Cabada et al. 2003 (13)</b>	2001	Cuzco, Peru	Quantitative study	2946 travellers Randomly chosen	Anonymous self-admin. questionnaire	Sexual behaviour in travellers
<b>Bellis et al. 2004 (27)</b>	2000-2002	Ibiza, Spain	Cross-sectional study	1485 travellers Travelling back to UK	Short anonymous questionnaire	Sexual behaviour of young visitors to Ibiza, sexual risk taking & substance use
<b>Hughes et al. 2006 (16)</b>	2002	Ibiza, Spain	Case control study	British bar in Ibiza=92 British tourists=868 Opportunistic recruitment	Anonymous questionnaire	Sexual behaviour of young British working in bars and nightclubs
<b>Cabada et al. 2007 (12)</b>	2007	Cuzco, Peru	Cross-sectional study design	161 participants 18-15 year olds with a year of work experience	Questionnaire & blood tests	Sexual behaviour, prevalence & knowledge of STI in tour guides
<b>Croughs et al. 2008 (28)</b>	2005	The Netherlands		1907 travellers attending pre-travel clinic over three month period	Anonymous questionnaire	Risk factors casual / protected sex
<b>Tassiopoulos et al. 2009 (20)</b>	2008	Moshi, Tanzania	Quantitative, case crossover study	465 female bar and hotel workers Sampling not mentioned	Baseline interviews	Condom use of female bar/hotel workers
<b>Bisika 2009</b>	2004	Malawi	Mixed	N= 205, based	In-depth	HIV & STIs

(15)			method , descriptive study	HIV prevalence rate of s 15% (estimate)	interviews, focus group discussions (FGDs) and surveys	knowledge, attitude, and behaviour & unwanted pregnancies in tourism workers and communities around tourist facilities
<b>Simkhada et al. 2010 (14)</b>	2005	Annapurna, Langtang, Everest region, Nepal	Qualitative design	21 tourism workers Purposive sampling	In-depth interview	Sexual health knowledge, behaviour and relationships
<b>Tajudeen et al. 2011 (10)</b>	Not stated	Gauteng Province, South Africa	Mixed methods, cross-sectional descriptive study	338 tourism workers Random sampling	Self-administered structured questionnaire	HIV knowledge, attitudes and sexual behaviour tourism workers
<b>Rice et al. 2012 (22)</b>	2012	United Kingdom	Quantitative study	Not mentioned	Secondary data from national HIV database, clinic notes	People born in UK who acquired HIV abroad
<b>Padilla et al. 2012 (19)</b>	2009	Sosua, Dominican Republic	Qualitative ethnographic study	32 tourism workers Theoretical sampling	Ethnographic observations and semi-structured interviews	Alcohol/ drug use, sexual practices within tourism environments
<b>Guilamo-Ramos et al. 2013 (30)</b>	2009	Sosua, Dominican Republic	Qualitative ethnographic study	32 tourism workers Theoretical sampling	Ethnographic observations and semi-structured interviews	Tourism impact on family relationships and HIV risk,
<b>Kelly et al. 2014 (31)</b>	2009	Spain	Quantitative study	171 UK casual tourism workers working in Spain	Self-administered structured questionnaire	Alcohol/ drug use, sexual practices (no. partners, contraceptive use etc.)

### Characteristics of included studies

Sixteen studies were included in this review, ten quantitative, three qualitative and three mixed-methods studies. Study type was assessed by the reviewers and on no occasion differed from the method suggested by the original authors. Table 1 presents the basic descriptions of the studies included. The studies covered nine different countries: Dominican Republic, Egypt, Malawi, Nepal, Peru, South Africa, Spain, Tanzania, and the United Kingdom (UK). Ten papers focused solely on tourism workers. Five papers focused solely on tourists and one paper included both tourism workers and tourists. The evidence is presented in two sections by population: tourism workers and tourists.

### Tourism workers:

Six studies in this review reported on the knowledge of, attitude towards and practices regarding STIs and HIV/AIDS [10, 12-15, 30]. Four of these studies found that the respondents were aware of the prevalence of STIs and HIV/AIDS [10, 12, 14, 15] whilst two reported that respondents were aware of symptoms and types of STIs [10,14]. Two studies listed various ways of preventing STIs and HIV/AIDS, including giving priority to routine HIV tests, awareness and education in the tourism industry [10] abstinence, use of condoms and monogamy [15]. One study suggested that respondents were ready to change behaviour after learning about STIs and HIV/AIDS.

Six studies reported on the knowledge of, attitude towards and risk taking behaviour related to sex [10,12,13,16,17,31]. These studies suggested that tourism operators and tourists are likely to engage in sexual activities [10,12, 14,16,17,31]. One study noted that tourists were more likely to make sexual advances towards tourism operators than the other way round [14]. Two studies showed that it was more common for male tourism operators to have sexual relations with female tourists, than female tourism operators with male tourists [10, 19].

In terms of tourism workers, the risks of STIs were associated with substance misuse, condom use, number of sexual partners, history of STIs, risk perception and working conditions. Eight studies reported a link of sexual behaviour of tourism workers with substance misuse [10,12,13-16,18,19,31]. Two studies reported the positive association of alcohol and sex [19,31] and another study reported the increased risk of STIs and HIV/AIDS after substance misuse [18]. Nine of the studies reported on low condom use among tourism operators [10,12,14-18,20, 31]. According to two studies condoms were not readily available locally [14,15]. While in one study the majority claimed that they used condoms to prevent STIs, another stressed that it was to avoid pregnancy [14]. Seven studies reported on sexual partners [10,12,14,15,18,20,31]. Four reiterated there was an increased risk of STIs and HIV/AIDS where the respondents had multiple sex partners [12,15,18,20]. One study on UK casual tourist workers noted that only one-third of sexually active participants had received any health information on drugs, alcohol or sexual health whilst working abroad [31]. Only two studies addressed an individual's history of STIs [15,18], whilst one study stated that women who previously had experienced STIs had a higher risk of contracting HIV [18]. Two further studies reported on risk perception regarding STIs and HIV/AIDS where respondents perceived themselves to be low risk [12,18]. Three additional studies related the sexual behaviour of tourism workers to their working conditions [12,15, 30]. One study also reported that those working in isolated holiday camps were more vulnerable to HIV and STIs [15] and the other reported that working as a guide on more than one trekking route increased their risks of acquiring STIs [14].

Three of the studies in this review talked about the prevalence of STIs and HIV [12, 18, 21]. Two studies mentioned power roles where tourism workers are financially pressurized ('bribed') to engage in sexual activities with tourists [10, 14], whilst one qualitative study noted the desire of some tourist workers to find a foreign partner who would take them away from poverty [30].

#### **Tourists:**

Only two studies on tourists reported on the knowledge of, attitudes towards and behaviour regarding STIs and HIV/AIDS. One paper stated that very few tourists had

received pre-travel information and counseling on the risks of casual travel sex before leaving their home country [13]. Another paper reported that 40% of the participants in the study reported having received pre-travel counseling [29]. However, this study found that pre-travel counseling had no association with risky sexual behavior [29].

Two studies reported on the knowledge of, attitudes towards and behaviour related to sex [10, 13]. Tajudeen and colleagues reported that tourism workers thought that tourists were more likely (55.0% versus 47.9%) to sexually approach them than the other way round [10], others noted that sexual encounters among tourists and tourism operators/ local partners were relatively common [13].

In terms of tourists, the risks of STIs were associated with substance abuse, sexual partners, condom use and history of STIs. Three studies reported on substance abuse [16, 28, 29] where one study stated that no associations were found between drug use and sexual behaviour for tourists arriving without sexual partner [15] and another study stated that only 8% of the sexually active participant in the study reported substance misuse [29]. Three studies have reported on condom use [27-29]. A Dutch study reported that the group of participants having sexual contact, condom use was mostly associated with carrying along a condom, awareness of STIs and using condoms during casual sex [28]. Similarly, three studies also reported on sexual partners [27-29]. One study found that very few (12%) travelers had new sex partners during their visit, but sex was more likely with local partners rather than sex workers or other travelers [29]. Another study stated that only 5% of travelers engaged in sex with a new partner while travelling and most of it occurred after alcohol consumption [28].

## **Discussion**

From the studies identified, six key themes were evident that relate to the sexual behaviour of tourists and tourism operators. This study found that the knowledge, attitude and practice regarding STIs and HIV were fairly good among tourists and tourism workers. They were mostly aware of the prevalence, symptoms and prevention of STIs and HIV. However, one study showed that tourists were not given pre-travel counselling on the risk of casual travel sex [13]. Whilst another found that migrant workers in the tourism industry did not have much health information/promotion in their host country [31]. A comparison between knowledge, attitudes and behaviour in developing and developed countries was not possible as the studies conducted in developed countries did not cover this particular theme. Moreover, there are not many studies conducted that explore the knowledge of, attitude towards and practices related to STIs and HIV in tourists and tourism workers.

In terms of the knowledge, attitude and risk taking behaviour around sex, our review showed that tourists were likely to have sexual relations with tourism workers or locals and tourism workers were also likely to have to sexual relations with the tourists. Although, more studies were included tourism workers, this study found that tourists rather than tourism workers were more likely to have casual sex while travelling abroad. A cross-sectional study involving Australian tourists to Thailand seeking pre-travel counselling stated that around 66% of the travellers had planned and were hopeful of having sexual relations while abroad [22]. In regards to risk taking behaviour of travellers, another study suggested that travellers taking sexual risk were more likely to not practise safe sex regardless of the place of destination [23]. The latter study also reported that 5-50% of travellers travelling short term engage in casual sex [23].

Most of the papers in this review found that lack of condom use and substance misuse were the major risk factors of contracting STIs and HIV along with sexual partners, history of STIs, risk perception and working conditions. In a study involving Norwegian travellers reported that 41% of the travelling respondents had casual sex and the condom use was reported to be very low [24]. Another study exploring sexual contact of UK travellers reported that only 64% of the tourists used condoms inconsistently [25]. A study conducted in Hong Kong states that 44% of travellers engaged in casual sex while abroad, 37% of whom did not use condoms [26].

There were only few papers in this review that mentioned prevalence of STIs and HIV. A study exploring STIs in travellers stated that HIV related to travelling was the most common STI. While in regions like Asia and Africa, migrant labours, sex workers and truck drivers travelling long distance maintain the HIV epidemic, in Europe there have been increasing numbers of new HIV cases over the years attributable mostly to travel [23]. Although this paper also covers the role of power in sexual behaviour of tourists and tourism workers, no other studies were found that discussed this factor.

Knowledge of STIs and HIV for tourism operators is evident but the impact of this knowledge on behaviour is less well researched. The prevalence of sexual behaviour between tourists and tourism operators is not quantified but certainly apparent and acknowledged by both populations. Risks identified impacting on this behaviour includes substance misuse and lack of condoms. No studies were identified that evaluated interventions to improve knowledge, attitudes or behaviour.

#### **Limitations and strengths**

This review presents the first systematic review of tourism operators and their knowledge of STIs. Sixteen studies were identified that focused solely on the factors that influenced sexual behaviour between tourists and tourism operators.

Whilst there is a larger body of published evidence on the factors related to tourists' behaviour there is a need to design and implement robust research on the impact of sexual behaviour on tourism operators.

The studies included are heterogeneous in both methods used and population studied. Due to the heterogeneity the applicability and generalizability of the results are limited. No meta-analysis was able to be conducted due to the heterogeneous nature of the data included. Furthermore, the majority of the studies identified were published studies and this may have excluded any country level evaluations, which may provide valuable data. In addition studies largely rely on self-reported behaviour possibly influencing the validity of the data. One key strength of this systematic review is that it is the first to combine studies of both tourists and tourism workers.

#### **Conclusion**

Only 16 studies were identified, conducting a variety of research methodologies in vastly differing populations of tourists and tourism employees. Evidence of knowledge, attitudes and prevalence of sexual risk behaviour in tourism employees is limited but does suggest that prevalence of such sexual encounters is high. Knowledge regarding STIs was fairly good among tourists and tourism operators. Our review suggests the need for education, training and promotion of travel medicine in the sexual health field. Traditionally this has focused on tourists but our review suggests that more efforts should be made to focus attention on the needs of tourism workers without reducing the focus on tourists. STI screening, travel history in terms of contracting STIs and safe-sex awareness are also found to be necessary.

#### **Implications for practice**

The results of this review indicate some of the key factors that impact on the sexual behaviour of tourism operators with tourists. No clear intervention was identified to prevent acquisition of STIs or to prevent or reduce risky sexual behaviour. There is a need for a modification in sexual health education among tourist workers in low-income countries. Moreover, tourism policies need to be amended keeping in mind all stakeholders to ensure safer sexual encounters during travel. There is also a need to develop interventions that improve behaviour and risk awareness and to evaluate these with robust research methodologies.

#### **Implications for research**

Further research should focus on the effectiveness of interventions to change behaviour and sexual risk perception of tourism operatives engaging in sexual behaviour with tourists. Research should cover studies on cultural and socio-economic aspects of tourist workers, including aspects of (potential) exploitation. Robust quantitative studies with a



qualitative component would allow impact to be successfully measures and in depth analysis performed.

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