A descriptive study of advising practices during travel health consultations in France

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Abstract

Background: Recommendations for improving traveler adherence address both the content of the advice given and the structure of the consultation. The objective of this article is to describe how travel health consultations are structured in France.

Methods: A questionnaire based on both theoretical foundations and recommendations in the literature was sent to health professionals who practice in travel clinics, all of them members of France's Société de Médecine des Voyages.

Results: The response rate was 78,5% (176/224). One hundred thirty nine respondents (78,9%) reported that treatment (vaccinations, in particular) and advising were done at separate times in the consultation. The majority of respondents questioned the traveler on his wishes, difficulties, expectations, experiences and previous knowledge. A third explored the traveler's perceptions regarding the seriousness of diseases, the effectiveness of prevention measures and the latter's adverse effects with a difference when health professionals were practicing more than five years and/or had received specific training ($p<0,05$). At the end of the consultation, 92% of the respondents asked the traveler whether he understood the advice given. One hundred thirty seven respondents (77,8%) gave travelers a booklet with additional advice, and 66.5% gave them a website where they could find health advice on their destination. Travelers were almost never offered group consultations or the opportunity to work on real-life situations. When there were language barriers, the respondents were more likely to seek help from a French-speaking member of the traveler's entourage (48.9%) than from an interpreter (22.7%).

Conclusions: While the majority of practitioners follow most of the recommendations regarding the structure of travel health consultations, some of the factors that enhance traveler learning are underutilized, reducing the likelihood that travelers will apply the advice given.

The study illustrates the need to develop more educational intervention methods and to evaluate their impact on travelers.

Keywords: travel medicine, advice, health education, practice, prevention

Introduction

The World Tourism Organization estimated in 2015 that more than a billion tourists had traveled in 2014, and the number of people making trips to many destinations all over the world has increased steadily in recent years [(1)]. More trips and a wider range of destinations mean that travelers are at higher risk of health events – hence the importance of prophylactic measures to prevent their occurrence or exacerbation. Travelers to the developing world should have a medical consultation before their trip to get information and appropriate prevention advice [(2)]. This is, however, rarely the case; a 2010 study from the U.S. reported that approximately 46% of travelers did not seek information from a health professional prior to their trip [(3)].

This type of consultation can be done by the primary care doctor or in a travel clinic. A visit to a travel medicine specialist is especially recommended for travelers whose health history includes specific risks or those considering trips that are riskier by virtue of their length, remoteness, or hazards i.e. malaria. This is the case, for example, for migrant travelers (visiting friends and relatives, or VFRs) returning to their country of origin [(4-5)]. The effectiveness of such consultations in terms of health impact varies depending on the risks faced [(6)]. The outcomes depend on several factors: the quality of the advice in terms of content (consistent with scientific recommendations), how it is presented, and the traveler's adherence to it. Several studies have shown that sometimes the advice dispensed is incorrect, incomplete or even contradictory [(7-9)]. In addition, despite specialized consultations and in some cases the availability of decision-making tools [(9)], the literature shows that such consultations are on the whole inefficient and that travelers do not always assimilate the recommendations or follow them [(10-12)]. In order to improve traveler adherence, some authors stress the importance of using pedagogical and health education-based concepts to tailor the content and form of the consultation to the type of travel and traveler [(8,13)]. In particular, they emphasize the

importance of longer or split consultations for people at high risk of health hazards (long-haul travel, co-morbidities, isolated conditions, etc.) of limiting the amount of advice given, of assessing the traveler's perception of the risk and the seriousness of diseases frequently during the consultation, and of considering the traveler's opinion on prevention advice [14].

The travel health consultation should be individualized in accordance with the traveler's destination (specific prophylaxis and prevention for specific risks, etc.) and the traveler's typology (age, medical history, etc.)[15]. It should be also personalized according to his/her knowledge, perceptions, capacities, choices, etc.)[14]. Some authors feel that travel health consultations should rely more heavily on education and communication theory. They also suggest replacing the term "advice" with "travel health education" [8,16]. While the literature includes recommendations on how such consultations should theoretically be structured, however, it is hard to know whether actual practices hew to those recommendations.

Hoping to improve the quality of travel health consultations, the Société Française de Médecine des Voyages (French Society for Travel Medicine, or SMV) has held several orientation trainings for its members since 2013 on pedagogy as it applies to travel medicine. The training courses introduced the foundations of that pedagogy in the form of theoretical concepts and interactive workshops.

The aim of this article is to provide an inventory of how travel health consultations are structured in France and to discuss possible improvements in terms of educational strategies according to the theoretical frameworks and recommendations found in the literature. The results can be used to strengthen advising practices and thereby help improve traveler adherence to prevention advice.

Methods

Study population

The study was aimed at all travel doctors and nurses who are members of the SMV in France and offer pre-travel health consultations as part of their daily practice.

Data collection

A questionnaire-based survey was conducted. As we could find no suitable questionnaire in the literature that could be used to describe health professionals' pre-travel consultation process, we designed our own questionnaire using the theoretical foundations and recommendations proposed by authors specializing in pre-travel consultations [8,13,16]. The questionnaire was based on Rosenstock's health belief model [17], Bandura's social cognitive theory[18], and communication [19] and learning theories from cognitive psychology (learning aids, teach-back and preparation for transfer) [20].

It consisted of forty-three statements/questions, divided into several sections:

- Description of the practice: thirty-three closed questions with a four-level scale (always/often/rarely/never) for rating the frequency of the practice. These describe at which point in the consultation advice is given, the process, the aids used and the difficulties encountered;
- Respondents' self-assessment of their practice: two questions assessing self-perception of effectiveness, rated on a scale from 0 (no effectiveness) to 10 (high effectiveness);
- General information about the consultation: duration and adaptation factors (four questions)
- One open question for free additional comments
- Information about the respondents' profile (four questions).

Prior to distribution, the questionnaire was tested for comprehensibility three times, on ten travel medicine practitioners, to obtain the final version validated by the authors of this article. The questionnaire was distributed via a digital survey platform to all members of the SMV. Digital responses were accepted from 5 April through 27 May 2016. Three follow-up reminders were sent.

Data analysis

The questions with a four-level rating scale were analyzed by grouping the always/often and rarely/never responses. The response percentages were calculated for each of those two groups. A univariate analysis, using Fisher's Exact Test with Biosta TGV®, has been done with the answers of the consultation process and two health professionals' characteristics: the experience of travel consultation (less and more than 5 years) and training or not in communication or health education. The significance level was set at 0,05. Three levels were defined arbitrarily to analyze how the respondents evaluated the effectiveness of their travel advice practice: high (7, 8, 9 or 10 on the proposed scale), medium (4, 5 or 6), or low (0, 1, 2, or 3). Responses to the open comments were analyzed using an inductive approach by progressive identification of themes and sub-themes.

Results

Health professional's characteristics

The return rate was 78,5% (176 responses out of 224 questionnaires sent). Two third of the respondents were between the ages of 45 and 65 years, and 117 (66.4%) were women. Two third (60.5%) had been doing pre-travel consultations for more than five years and 56,8% had received specific training in travel advice practice, in communication, or in health education.

Consultation process

Positioning of the advice and information selection criteria: for 78,9% (139/177) of the respondents, treatment time (primarily vaccinations) was separate from advising time. Vaccinations and other treatments were done at the start of the consultation (75/155, 48,3%) more often than at the end of the consultation (68/155, 43.8%). A minority of respondents (12/155, 7.7%) dispensed the advice just before administering a vaccine or other treatment. Less than half (82/176, 46.5%) selected information and advices they felt was necessary based on the traveler's destination and, 43.7% (77/176) based on the traveler's experience and knowledge (or lack thereof); the remaining 9.6% (17/176) tended to deliver systematic contents based on the traveler's destination.

Consultation process (Table 1): Very few respondents administered a knowledge questionnaire prior to the consultation (12/176, 6.8%). The majority of respondents (between 52.8 and 82.4%, depending on the question) enlisted the traveler's participation during the consultation by inquiring about their wishes, difficulties, experiences and prior knowledge about the risks and their prevention. Between 24,4% and 37.5% of respondents evaluated the traveler's perception of the seriousness of diseases and the effectiveness of prevention measures and their side effects. A significant difference was showed when health professionals were practicing more than five years and/or had received specific training ($p<0,05$) compared to, respectively, practitioners with less than five years' experience and practitioners with no training in health education. At the end of the consultation, most of the respondents (92%) asked the traveler if they understood the advice given, and only a minority (21%) asked the traveler's to repeat back the messages transmitted. About a third of the respondents (33,5%) asked the travelers about the advice they thought they could or could not put into practice. Most of the respondents used booklet-type written aids that repeated and supplemented the advice given (69.3%), but only 31,8% used visual aids to get the messages across. They often (66.5%) pointed travelers to a website where they could find health advice

about their destination. Travelers were almost never offered group consultations (4%) or the opportunity to work from real-life situations (15,9%) even though health professionals who had more than 5 years' experience in travel medicine did it more compared to those with less than five years' experience (p=0,03). When there were language barriers with the traveler, respondents were more likely to ask for help from a French-speaking member of the patient's entourage (48.9 %) than from an interpreter (22.7 %).

Self-assessment of the effectiveness of the consultation (Table 2): While most respondents (82,3%) rated themselves highly effective in providing prevention advice, only 39,2% felt the application level of that advice by travelers was high.

General organization of the consultation: The majority of respondents (65.9%) reported that their consultation lasts from 15 to 30 minutes. It could be longer, depending on the length of the trip (85.3%), the nature of the trip (78.5%), whether the traveler had a history of complicated travel (65.5%), or, in 44.1% of the responses, for other reasons (with no details about those reasons).

Sixty-eight respondents (N=176, 38.6%) added open comments on their consultation. They gave details on the quality of the consultations conducted (31 comments) and their organization (23 comments): adapting the consultation to the audience, educative attitude employed, division of roles, etc. Things that limit the quality of the consultation, as well as any difficulties, were also cited (16 comments), including time limitations creating the impression of incomplete care or loss of quality (10), for example *"the difficulty lies in having to simplify the advice and limit how much of it to give; limiting yourself to two or three pieces of advice in the hopes that it is retained and applied can be uncomfortable and give the impression of incomplete care";* having to consult alone (3); different practices at the same center (3); the lack of feedback on traveler compliance (3); the lack of support materials (2); and the need for training (4). Lastly, four participants pointed out the value of the

questionnaire itself in improving their practice: *"Very interesting and educational questionnaire on another consultation approach. We'll be exploring this in our team"; "need to think about using an interpreter"; I realized as I was answering this questionnaire that maybe I could change my practice".*

Discussion

This study helped describe the practices in the field of travel hazards prevention of a relatively large number of travel health practitioners. The high response rate (78,5%) seems to show that doctors and nurses specializing in travel medicine find this subject important. The consultation structure – as reported by the respondents – is on the whole in line with the recommendations and the literature [8.13.16] in terms of the point at which advice is given relative to treatment; determining the travelers' expectations; and exploring the travelers' beliefs, knowledge and experiences beforehand and adapting the advice accordingly. Some aspects get less attention, such as travelers' perception of the seriousness of the diseases they might contract and the effectiveness and side effects of the prophylactic treatments offered. A possible explanation for that finding might be practitioners' difficulty delving into the reasons why travelers do not follow the advice or prescriptions given (two thirds of the respondents do not ask travelers about advice they thought they would not or could not follow). Interestingly, practitioners having had training on health education/communication seem more likely to explore theses dimensions, highlighting the value of training to improve pre-travel consultation. Another explanation might be the length of the consultation, which is too short to cover all aspects of prevention, as some respondents explained in their open comments. This raises the issue of consultation efficiency when the traveler is given too many messages, since the ability to remember such advice is generally inversely proportional to how much is given. Indeed, some authors recommend limiting the content of consultations to three

messages by choosing those most appropriate to the traveler's situation and giving out written materials that cover other prevention topics [13, 21].

The study shows that nearly all practitioners use a closed question at the end of the consultation to make sure that the traveler understands the advice given – a relatively ineffective method, since a "yes" response in no way guarantees that the message was understood. Few ask the traveler to repeat back the advice or verify the traveler's degree of certainty about the knowledge acquired – that certainty being an assurance that the knowledge will be applied in the traveler's context [22]. The same observations can be found in the health literacy field, when caregivers want to know whether patients are capable of understanding a medical text or analyzing its contents [23]. Yet having the traveler repeat back the advice (teach-back method) has two benefits; it gives the practitioner confirmation that the advice was really understood, and makes it easier for the traveler to retain it [24-25]. Some authors feel that asking every patient to repeat back advice to assess comprehension not only improves patient adherence, but may even help combat social inequality [13.21.26]. Lastly, while that technique reportedly helps engage the traveler in applying the advice while traveling [27], the study shows that practitioners do not take time at the end of the consultation to explore with the traveler possible obstacles to actually putting the advice into practice – i.e., the traveler's choice to take the advice or not, or things that might hinder application, like the influence of peers and family or a lack of confidence in one's skills. Such factors can, however, impact adherence to the advice given [17.18.28]. The failure to verify can be explained by the fact that not all practitioners automatically possess the educative attitude necessary to this practice[29]. Indeed, while soliciting information about the traveler, his history and his motivations is part of the medical diagnosis phase, verifying and preparing for transfer of the advice given requires relinquishing the belief that informing and explaining is sufficient to ensure that the patient understands the advice and will apply it. And that is precisely what the practitioners'

self-assessment reveals; while they believe that their consultation is fairly effective, they consider the application of advice by the person consulting only mediocre. This lends support for the idea, mentioned above, of consultation education, in which the traveler's knowledge is explored and reinforced, the traveler repeats back the messages, and is prepared to transfer the advice to the travel setting [16,21,26].

Analysis of the responses and open comments shows the respondents' desire to adapt their advice to travelers and make it easier for travelers to retain it (using a variety of educational materials). On the other hand, they almost never have the traveler practice applying the advice in context by solving problem situations like case studies, or discuss obstacles to its application.

The respondents emphasized the things that in their opinion limit the quality of the consultation – its duration, in particular. While acknowledging the importance of such educational practices, some mentioned how difficult it would be to do everything recommended in the questionnaire within the consultation time frame. So it seems important to consider intervention modalities that would help travelers better assimilate the advice they are given. According to our results and the literature, the key-points to improve the pedagogic approach in travel medicine consultation are displayed in Table 3 and summarized as follows: propose to the traveler a pre-consultation questionnaire (would free up some consultation time by identifying pre-existing knowledge that does not need to be revisited); limit the advice to three messages (by choosing those most appropriate to the traveler's situation) and giving out a document covering other prevention topics ; in case of travel with particular risks and if the time before departure allows it, consult the travelers twice (would allow to verify and to strengthen the advice) ; at the end of the consultation, ask the traveler to repeat back the advice (teach-back method) [8,13,16,21,26]. Additionally, intervention of other professional should be considered, particularly health educators, who would be able to provide adapted

educational counseling and group consultations could also be employed to reinforce learning as it is proved in other field of prevention [30]. This could be cost-effective on one hand and could stimulate peer discussion and motivation in the travelers on the other hand.

This study had some limitations. The questionnaire only gave a description of reported, rather than actual, practices, which might be different. In addition, because all of the respondents were SMV members, there might have been a social desirability bias, orienting the members' responses toward what they believe to be best practices. Although the anonymity of the survey helps reduce such bias, an observational study would better describe these practices in context.

In conclusion, this study showed the relatively good quality of travel advice consultations by members of the Société de Médecine de Voyage, which represents the majority of France's travel medicine practitioners. Aside from organizational aspects that may limit the consultation's effectiveness, it appears that some of the factors fostering traveler learning are underutilized in the consultation, reducing the likelihood that travelers will apply the advice they are given. These findings suggest that travel medicine practitioners need stronger training in patient education, although the survey shows that they already have some foundation in travel medicine pedagogy. The next phase might include an assessment of the impact on travelers, for example in comparing the effectiveness of travel medicine consultations between experienced and trained practitioners using pedagogical tools and attitudes, and practitioners poorly involved in travel medicine or in health education.

Acknowledgment: the authors thank all the health professionals of the Société de Médecine des Voyages who enthusiastically filled the questionnaire.

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