



Translation and Validation of the VISA-P Questionnaire for French-Speaking Patients

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Disclosure of speaker's interests

No (potential) conflict of interests



[RESEARCH REPORT]

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Cross-cultural Adaptation and Validation of the Victorian Institute of Sport Assessment-Patella Questionnaire for French-Speaking Patients With Patellar Tendinopathy

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Introduction



- Patient monitoring is sometimes difficult to « quantify »
 - e.g. pain, function, quality of life ...
- Algo-functional questionnaires → allow to quantify the evolution of patients' symptoms → improve the monitoring + interest of numerical values in scientific studies
- Most of the algo-functional questionnaires are developed in English or other languages (German ...).



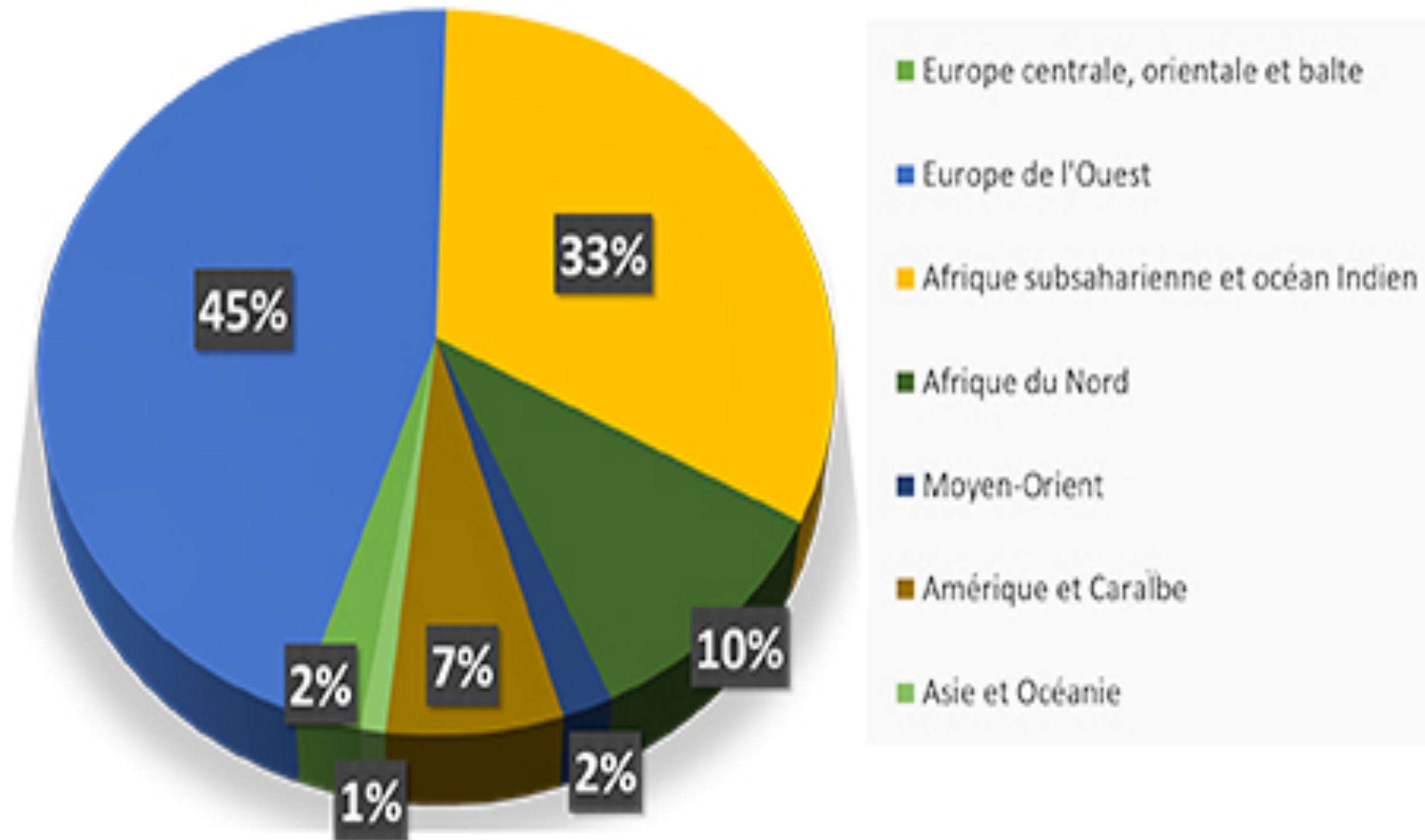
VISA-P

- Patellar tendinopathy is the most common overuse injury of the knee. It usually occurs in sports requiring jumps or significant quadriceps work.
- The Victorian Institute of Sport Assessment-Patella (VISA-P) is a questionnaire originally developed in English to assess the symptoms and repercussions of patellar tendinopathies and their impact on daily and physical activities.
- 8 questions
- The maximum score of the VISA-P is 100, which represents an asymptomatic subject. The theoretical minimum score is 0, corresponding to major functional impairment.
- Translated in Spanish, Swedish, German, Italian, Brazilian, Dutch, Korean.





INTEREST OF A FRENCH TRANSLATION ?



- 5th most spoken language in the world (English, Spanish, Mandarin, Arabic or Hindi)
- > 274 millions of French-speaking people in the World (France, Belgium, Switzerland, Luxembourg, Africa, Canada ...)
- One of the two languages in sports and IOC





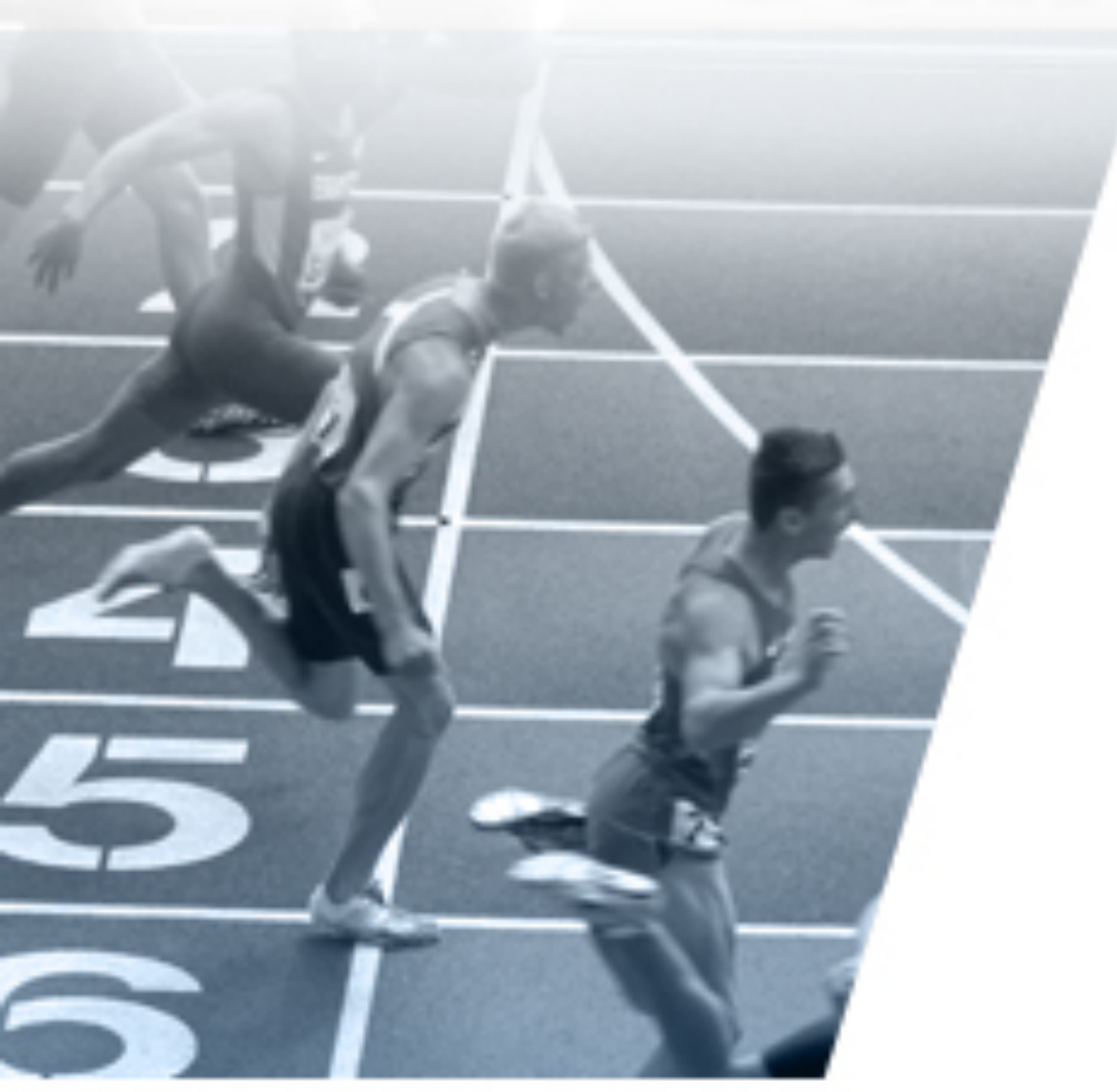
INTEREST OF A FRENCH TRANSLATION ?

- A literal translation can be random and may not match the objectives of the original questionnaire
- The need to have the translation validated by experts in languages ("subtleties" of the language) and in the medical field (medical language relating to the pathology)
- Need to have one and only one translation validated by language so that it is always the same that is used and for scientific research (associated reference)
- Guidelines and validation according to international recommendations (Beaton et al 2000)



Double Goal!

- ☑ **Get an interculturally adapted translation**
 - ☑ **Evaluate the psychometric properties**
- 
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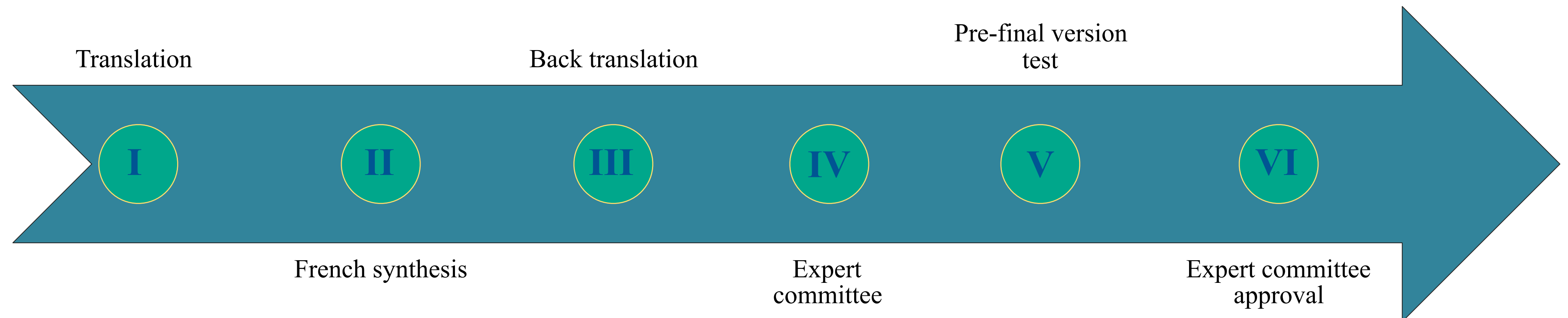
Methods



I. TRANSLATION

According to the international recommendations in 6 steps:

- Stage I: Initial translation
- Step II: Synthesis of translations
- Step III: Back translation to the original language
- Stage IV: Expert committee
- Step V: Pre-final version test
- Step VI: Expert committee approval





II. VALIDATION



Pathological (n=28)



At risk (n=42)



Healthy (n=22)

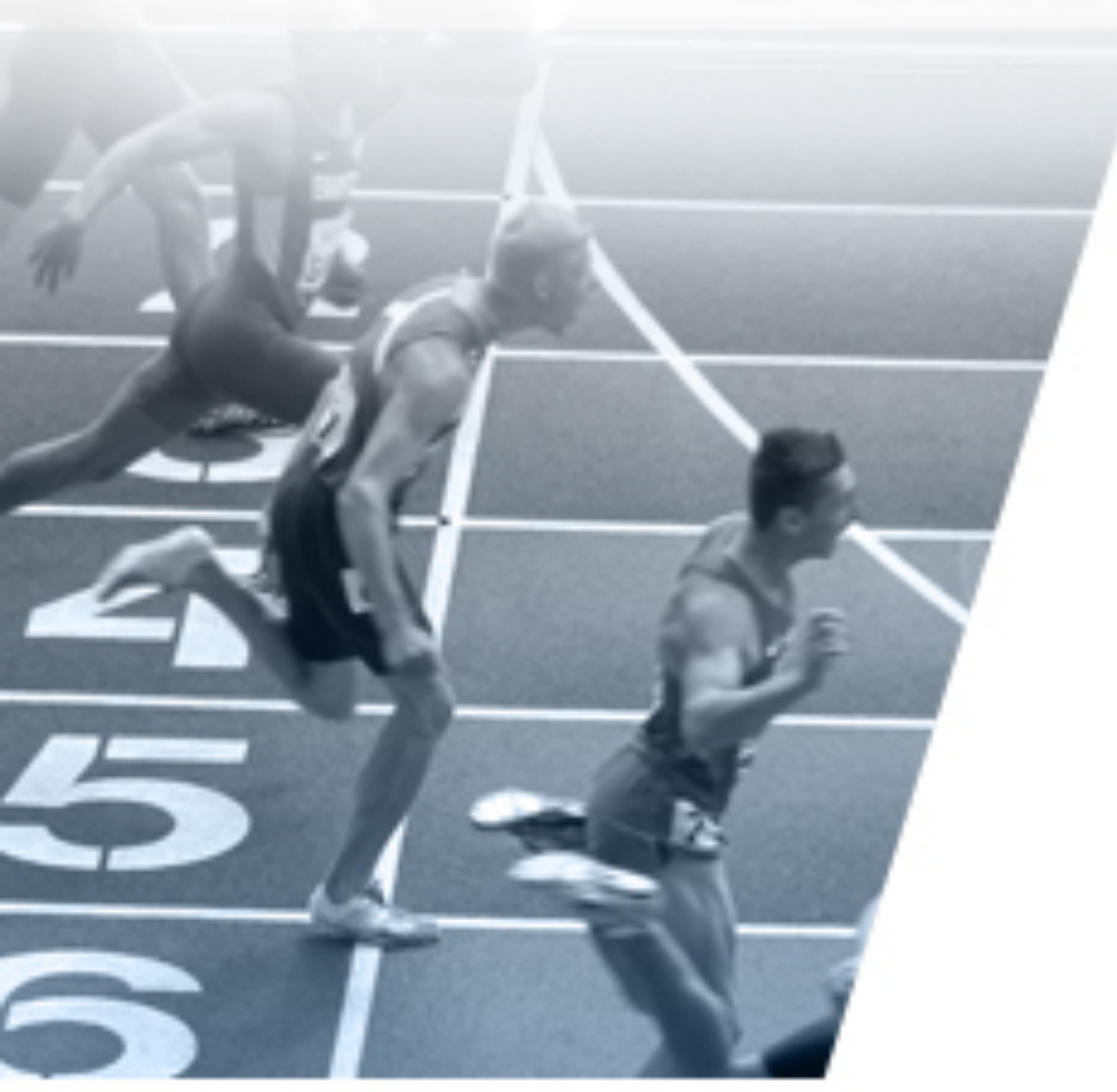
...

Step 1

Step 2
(+ 30 min)

VISA-P-F +
SF-36

VISA-PF





III. STATISTICAL ANALYSIS

- Fidelity test re-test via the ICC (also achieved with a confidence interval of 95%)
- Standard error (SEM) and minimal detectable change (MDC)
- Evaluation of internal coherence via the alpha coefficient of Cronbach
- Evaluation of the validity of the building via the coefficient of Spearman.
- Assessment of the floor and ceiling effect



Results



FINAL VERSION OF THE VISA-PF

1. Combien de minutes pouvez-vous rester assis sans douleur?

0 min											30 min	
	0	1	2	3	4	5	6	7	8	9	10	Points _____

2. Ressentez-vous des douleurs lorsque vous descendez les escaliers (avec un cycle de marche normal)?

Douleur extrême											Pas de douleur	
	0	1	2	3	4	5	6	7	8	9	10	Points _____

3. Ressentez-vous des douleurs au genou lors de son extension active sans appui?

Douleur extrême											Pas de douleur	
	0	1	2	3	4	5	6	7	8	9	10	Points _____

4. Ressentez-vous des douleurs lorsque vous êtes debout pieds joints, et que vous vous laissez aller en avant pour vous réceptionner avec la jambe douloureuse (lente avant genou en charge)?

Douleur extrême											Pas de douleur	
	0	1	2	3	4	5	6	7	8	9	10	Points _____

5. Présentez-vous des difficultés lors de squats?

Incapable											Aucun problème	
	0	1	2	3	4	5	6	7	8	9	10	Points _____

6. Présentez-vous des douleurs pendant ou immédiatement après avoir réalisé 30 sauttements unipodaux (sur une jambe)?

Douleur extrême/ incapable											Pas de douleur	
	0	1	2	3	4	5	6	7	8	9	10	Points _____

7. Pratiquez-vous actuellement un sport ou une autre activité physique?

0	Pas du tout										
4	Entraînement/compétition modéré										
7	Entraînement/compétition complet mais à un niveau différent (niveau) de celui qui a vu les symptômes apparaître										
10	Entraînement/compétition à un niveau identique ou supérieur de celui qui a vu les symptômes apparaître										
											Points _____

B. Complétez uniquement A, B ou C pour cette question:

- Si vous ne ressentez aucune douleur pendant la pratique sportive, veuillez compléter uniquement la BA.
- Si vous ressentez une douleur pendant la pratique sportive mais qu'elle ne vous empêche pas de poursuivre celle-ci, veuillez compléter uniquement la BB.
- Si vous ressentez une douleur qui vous empêche de poursuivre l'activité sportive, veuillez compléter uniquement la BC.

BA. Si vous ne ressentez aucune douleur pendant la pratique sportive, combien de temps pouvez-vous vous entraîner/jouer?

0 min	0-5 min	6-10 min	11-15 min	>15 min
0	7	14	21	30
				Points _____

BB. Si vous ressentez de la douleur pendant la pratique sportive mais qu'elle ne vous empêche pas de poursuivre celle-ci, combien de temps pouvez-vous vous entraîner/jouer?

0 min	0-5 min	6-10 min	11-15 min	>15 min
0	4	10	14	20
				Points _____

BC. Si vous ressentez une douleur qui vous empêche de poursuivre l'activité sportive, combien de temps pouvez-vous vous entraîner/jouer?

0 min	0-5 min	6-10 min	11-15 min	>15 min
0	2	5	7	10
				Points _____

Total _____/100



Pathological
n=28

29.1 ± 8.6 ans



At risk
n=42

26.3 ± 6.9 ans



Healthy
n=22

31.0 ± 13.5 ans

Volleyball
Basketball
Jumps

53 ± 17

86 ± 14

99 ± 2

Significative p<0,0001

Significative p<0,0001

Non-Significative

Item	Pathological Group (n = 28)	At-Risk Group (n = 42)	Healthy Group (n = 22)
1	57 ± 3.6	8.4 ± 2.4	100 ± 0
2	5.6 ± 2.8	9.0 ± 1.7	100 ± 0
3	7.2 ± 3.1	8.8 ± 1.9	99 ± 0.2
4	5.6 ± 2.4	8.6 ± 1.7	9.8 ± 0.5
5	6.4 ± 2.6	8.4 ± 1.8	9.6 ± 0.8
6	6.6 ± 3.0	8.7 ± 1.9	9.6 ± 0.8
7	3.2 ± 3.6	8.7 ± 2.0	100 ± 0
8	12.6 ± 7.8	25.4 ± 5.9	30.0 ± 0



	Pathological Group Score	At-Risk Group Score	Healthy Group Score
French version	53 ± 17 (n = 28)	86 ± 14 (n = 42)	99 ± 2 (n = 22)
Original version (English)	55 ± 12 (n = 14)	75 ± 17 (n = 100)	95 ± 8 (n = 26)
Swedish version	48 ± 20 (n = 17)	79 ± 24 (n = 17)	83 ± 13 (n = 17)
Italian version	44 (n = 25)
Dutch version	58 ± 19 (n = 20)	89 ± 11 (n = 15)	95 ± 9 (n = 18)
German version	62 ± 13 (n = 23)	...	95 ± 6 (n = 52)
Spanish version	56 ± 13 (n = 40)	90 ± 9 (n = 40)	96 ± 2 (n = 40)
Brazilian Portuguese version	59 ± 18 (n = 52)
Korean version	68 ± 16 (n = 23)	...	93 ± 9 (n = 5)



TEST-RETEST RELIABILITY OF THE VISA-PF

Item	Nonparametric Wilcoxon Signed- Rank Test	ICC*	SEM	MDC ₉₅	SEM, %	MDC, %
1	1.00	0.99 (0.997, 0.999)	0.129	0.358	1.62	4.50
2	0.63	0.99 (0.995, 0.998)	0.149	0.413	1.80	5.00
3	0.63	0.99 (0.994, 0.997)	0.149	0.413	1.74	4.81
4	1.00	0.98 (0.972, 0.988)	0.325	0.901	4.05	11.2
5	1.00	0.95 (0.926, 0.967)	0.506	1.401	6.24	17.3
6	0.13	0.98 (0.976, 0.989)	0.298	0.826	3.61	10.0
7	1.00	0.99 (0.994, 0.997)	0.224	0.620	3.01	8.34
8	1.00	0.99 (0.996, 0.998)	0.447	1.240	1.96	5.44
Total score	0.62	0.99 (0.996, 0.999)	0.522	1.446	0.657	1.82

Abbreviations: ICC, intraclass correlation coefficient; MDC, minimal detectable change; SEM, standard error of the measurement; VISA-PF, French version of the Victorian Institute of Sport Assessment-Patella.

*Values in parentheses are 95% confidence interval.



INTERNAL CONSISTENCY OF THE VISA-PF

Item	Correlation With the Total Score	Cronbach Alpha
1	0.65	.89
2	0.77	.88
3	0.60	.90
4	0.81	.88
5	0.61	.89
6	0.66	.89
7	0.62	.90
8	0.79	.88

Abbreviation: VISA-PF, French version of the Victorian Institute of Sport Assessment-Patella.



CONSTRUCT VALIDITY OF THE VISA-PF VERSUS THE SF-36

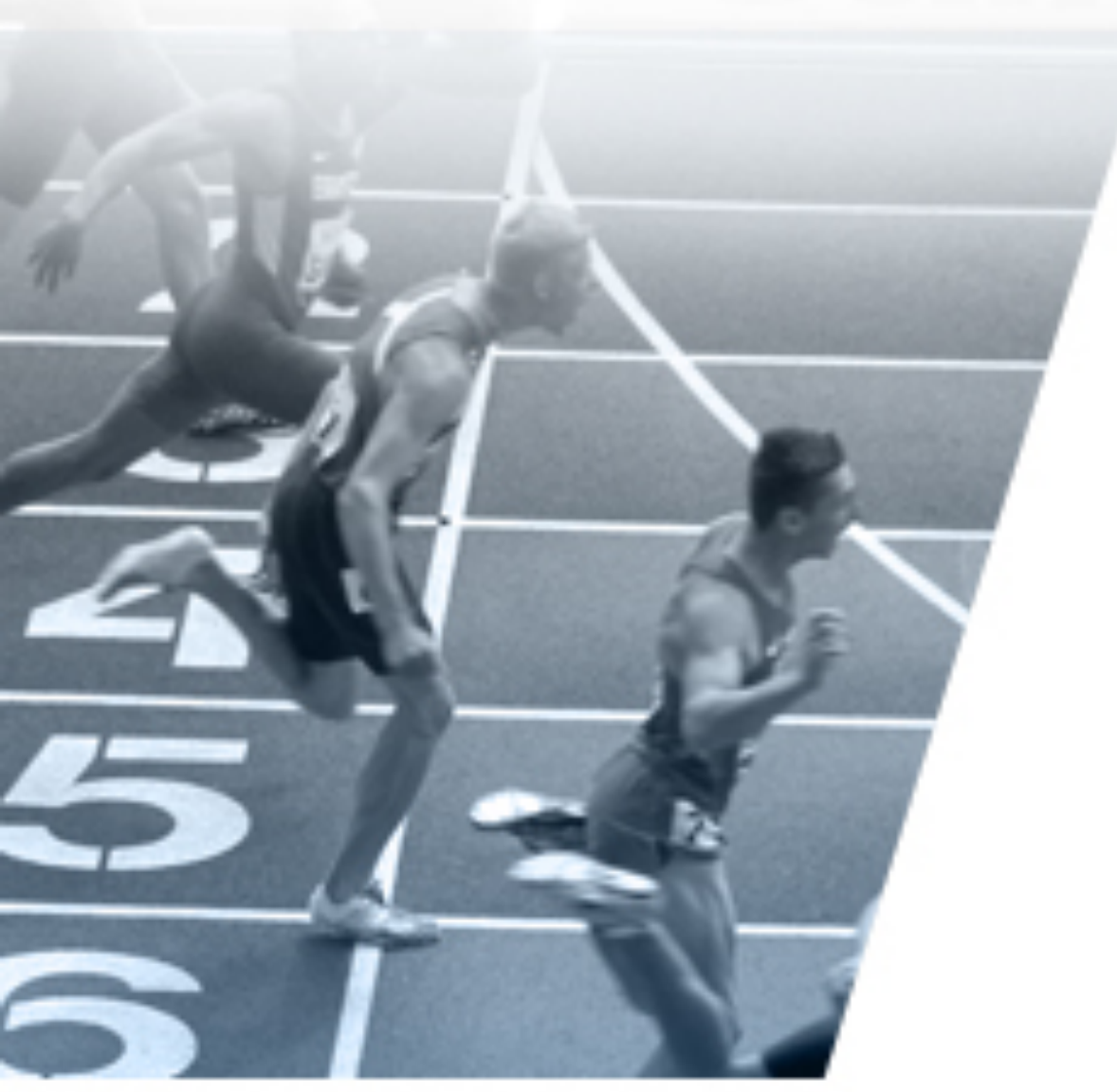
SF-36 Subscale	r_s
Physical functioning	0.72*
Physical role functioning	0.41†
Bodily pain	0.72*
General health perceptions	0.52*
Mental health	0.16
Emotional role functioning	0.25†
Social role functioning	0.29†
Vitality	0.33†
SF-36 total score	0.69*

Abbreviations: SF-36, Medical Outcomes Study 36-Item Short-Form Health Survey; VISA-PF, French version of the Victorian Institute of Sport Assessment-Patella.

* $P < .001$.

† $P < .05$.

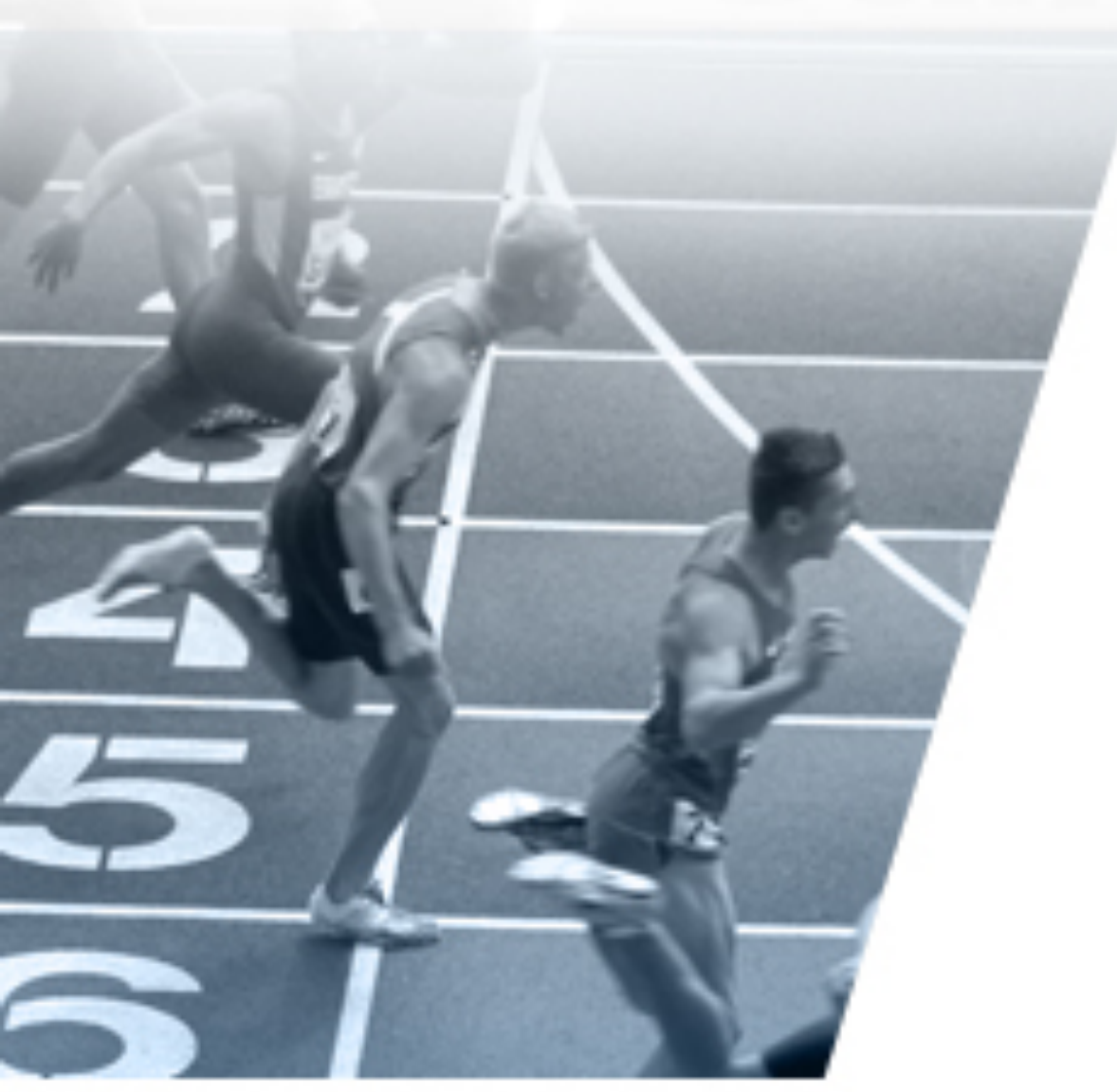




Discussion - Conclusion



- The French version of the VISA-P, originally developed in English to assess patellar tendinopathy symptoms, showed satisfactory :
 - construct validity
 - good test-retest reliability (at a 30-minute interval)
 - good internal consistency
 - no influence of minimum and maximum effects
 - good discriminant validity.





- The VISA-PF questionnaire is :
 - a valid translation of the original VISA-P, from English into French.
 - a valid instrument that can be used by researchers and clinicians to assess the severity of pain and disability in French-speaking subjects with patellar tendinopathy.
 - a questionnaire to assess the severity of patellar tendinopathy symptoms but is not a diagnostic tool. The minimal clinically important difference has not been reported for the French version of the VISA-P.

Validity and reliability of the French translation of the VISA-A questionnaire for Achilles tendinopathy

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JHT READ FOR CREDIT ARTICLE #448,
Scientific/Clinical Article

Cross-cultural adaptation and validation of the Patient-Rated Tennis Elbow Evaluation Questionnaire on lateral elbow tendinopathy for French-speaking patients



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Other questionnaires under translation and validation:

- Kujala Anterior Knee Pain Scale (**AKPS**)
- Exercise Induced Leg Pain (**EILP**)
- Functional Assessment Scale for Acute Hamstring Injuries (**FASH**)
- Achilles Tendon total Rupture Score (**ATRS**)
- Victorian Institute of Sport Assessment-Proximal Hamstring Tendons (**VISA-H**)
- Victorian Institute of Sport Assessment-Gluteus Tendons (**VISA-G**)
- Cumberland Ankle Instability Tool (**CAIT**)



Thank you for your attention !





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