



proposals for a patients questionnaire to assess
patients acceptance of compression devices

Giovanni Mosti; Lucca, Italy
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disclosure: no conflict of interest

no experience in QoL questionnaires

aim and limits

set up a questionnaire to evaluate compression comfort from a patient perspective

at this stage:

- initially prepared mainly thinking of edema-related compression
- evaluation of reproducibility and no comparative data

reproducibility tests

1. questionnaire was explained and given the patients
1. patients fulfilled the questionnaire by themselves
1. questionnaire withdrawn by the nurse
2. another questionnaire given after some minutes, fulfilled by patients and withdrawn by nurses

structure of the questionnaire

- I part: patients characteristics (to fill out by the health care provider)
- II part: information concerning the compression device (to fill out by the patient): 32 items
- III part: evaluation of the author-developed questionnaire (to fill out by the patient)

grading steps

we chose a four steps grading:

Example:

1. very easy
2. easy
3. difficult
4. very difficult

I part: patients characteristics

Name practitioner:

Name patient:

Age of patient:

Body weight:

Body height:

Reason for compression: edema leg ulcer

DVT/SVT post-procedures

I part: patients characteristics

Side of limb with compression: left/ right/ both
central

Body part with compression: arm/ hand/ breast or
trunk/ leg/ foot/ belly/ buttock/ genital region
(different possibilities)

Type of oedema: venous oedema/ lymphoedema
lipoedema (different possibilities)

I part: patients characteristics

If venous oedema: cause: ...

If lymphoedema: cause: a. primary (indicate: ...)
b. secondary (indicate...)

Other:.....

I part: patients characteristics

Kind of compression device:

Stockings/ garments: yes/ no

If yes: round knitted/ flat knitted
standard/ custom-made

length (e.g. knee -high, thigh- high,
panty hose)

compression pressure range (mmHg)
declared by producer.....

I part: patients characteristics

Kind of compression device:

Bandaging:

Components:

Adhesive bandages (Coban, Rosidal TCS):

Silicone bandages (Silwrap):

Velcro wraps (e.g. Circaid):

Pressure obtained with the compression device
(measured):

Measuring point:

Lying

Standing.....

II part: information concerning the compression device

Wearing information (if already worn for at least 1 week)

Concerning the previous week, how many days have you worn the compression device? ... days

Do you wear the compression device during the day/ at night/ both (circle)? ←

How many hours a day did you wear the compression device on average the previous week? ... hours a day

II part: information concerning the compression device

indicate how easy it is to put on the compression device?

		very easy	16
1.	very easy	easy	52
2.	easy	difficult	19
3.	difficult	very difficult	5
4.	very difficult		
		very easy/easy	2
		easy/difficult	2
		no response	4

←

4% variability
close grading

II part: information concerning the compression device

indicate how easy it is to put off the compression device?

	very easy	17
	easy	51
1.	very easy	
	difficult	18
2.	easy	
	very difficult	4
3.	difficult	
4.	very difficult	
	very easy/easy	2
	easy/difficult	2
	difficult/very difficult	2
	no response	4

6% variability
close grading

II part: information concerning the compression device

indicate how easy it is to put on shoes (in case of lower limb oedema)?

1.	very easy	very easy	9
2.	easy	easy	26
3.	difficult	difficult	47
4.	very difficult	very difficult	4
		very easy/easy	6
		easy/difficult	4
		difficult/very difficult	4

14% variability
close grading

II part: information concerning the compression device

indicate how easy it is to put on clothes (over the compression device)

1.	very easy		
2.	easy	very easy	10
3.	difficult	easy	61
4.	very difficult	difficult	13
		very easy/easy	6
		easy/difficult	6
		difficult/very difficult	4

16% variability
close grading

II part: information concerning the compression device

indicate the comfort of the compression device immediately after application:

1.	very comfortable		
2.	comfortable	very comfortable	14
3.	slightly painful	comfortable	44
4.	very painful	slightly painful	22
		painful	6

14% variability
close grading

very comf./comf.	10
comf./slightly painful	4

II part: information concerning the compression device

indicate the comfort of the compression device during the day :

1.	very comfortable		
2.	comfortable	very comfortable	13
3.	slightly painful	comfortable	41
4.	very painful	lightly painful	36
		very comf./comf.	4
		very comf./slightly painful	2
		comf./slightly painful	4

4% variability
close grading
2 steps in 2 cases

II part: information concerning the compression device

indicate the comfort of the compression device during the night :

1.	very comfortable		
2.	comfortable	very comfortable	13
3.	slightly painful	comfortable	49
4.	very painful	slightly painful	28
	10% variability	very comf./comf.	2
	close grading	very comf./slightly painful	4
	2 steps in 4 cases	comf./slightly painful	4

II part: information concerning the compression device

symptoms without compression at level of.....
(edema, ulcer, intervention etc)

A) Pain

	no	31
1.no	light	27
2.light	moderate	28
3.moderate	strong	4
4.strong	no/light	8
	light/moderate	2

10% variability
close grading

II part: information concerning the compression device

symptoms without compression at level
of.....(edema, ulcer, intervention etc)

	no	26
B) Sensation of heaviness	light	30
	moderate	16
	strong	3
1.no		
2.light		
3.moderate	no/light	17
4.strong	no/moderate	2
	no/strong	2
	light/moderate	4

25% variability
two steps in 2 cases
three steps in 2 cases

II part: information concerning the compression device

symptoms without compression at level of.....(edema, ulcer, intervention etc)

C) sensation of swelling

1.no	no	45
2.light	light	21
3.moderate	moderate	10
4.strong	strong	4
	no/light	12
	light/moderate	8

20% variability
close grading

II part: information concerning the compression device

symptoms without compression at level of.....(edema, ulcer, intervention etc)

D) stiffness

1.no	no	35
2.light	light	26
3.moderate	moderate	22
4.strong	no/light	9
	light/moderate	8

17% variability
close grading

II part: information concerning the compression device

symptoms without compression at level of.....(edema, ulcer, intervention etc)

E) tensed skin

	no	33
1.no	light	44
2.light	moderate	14
3.moderate	no/light	4
4.strong	no/moderate	2
	light/moderate	3

9% variability
close grading
2 steps in 2 cases

II part: information concerning the compression device

symptoms without compression at level of.....(edema, ulcer, intervention etc)

F) tingling/itching

1.no	no	40
2.light	light	36
3.moderate	moderate	8
4.strong	strong	8
	no/light	5
	light/moderate	3

8% variability
close grading

II part: information concerning the compression device

symptoms without compression at level
of.....(edema, ulcer, intervention etc)

G)exudate

		no	26
1.no		light	43
2.light		moderate	16
3.moderate		strong	8
4.strong	7% variability close grading	no/light	4
		light/moderate	3

II part: information concerning the compression device

Side effects of compression

A) discomfort

1.	no	no	45
2.	light	light	27
3.	moderate	moderate	16
4.	strong	strong	4
		no/light	4
		light/moderate	4

8% variability
close grading

II part: information concerning the compression device

Side effects of compression

B) warmth

1.	no		
2.	light		
3.	moderate	no	42
4.	strong	light	36
		moderate	8

14% variability
close grading

no/light	14
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II part: information concerning the compression device

Side effects of compression

C) itching

1.	no	no	46
2.	light	light	28
3.	moderate	moderate	12
4.	strong		
		no/light	10
		light/mod.	4

14% variability
close grading

II part: information concerning the compression device

Side effects of compression

D) aching

1.	no	no	48
2.	light	light	34
3.	moderate	moderate	12
4.	strong	strong	2

4% variability
close grading

no/light	4
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II part: information concerning the compression device

Side effects of compression

E) throbbing

1.	no		
2.	light	no	49
3.	moderate	light	45
4.	strong	moderate	2
		no/light	4

4% variability
close grading

II part: information concerning the compression device

Side effects of compression

F) cramps

	no	64
1. no	light	24
2. light	moderate	4
3. moderate		
4. strong	no/light	4
	light/mod	2
	mod./strong	2

8% variability
close grading

II part: information concerning the compression device

Side effects of compression

G) tender/ sore spots

1.	no	no	54
2.	light	light	30
3.	moderate	moderate	6
4.	strong		
	10% variability close grading	no/light	10

II part: information concerning the compression device

Side effects of compression

H) strangulation feeling

1.	no	no	70
2.	light	light	16
3.	moderate	moderate	4
4.	strong	strong	4
	6% variability close grading	no/light	6

II part: information concerning the compression device

Side effects of compression

I) Feeling of sliding

1.	no	no	76
2.	light	light	7
3.	moderate	moderate	5
4.	strong		

12% variability
close grading

no/light 12

II part: information concerning the compression device

Side effects of compression

J) bulkiness

1.	no	no	46
2.	light	light	26
3.	moderate	moderate	10
4.	strong	strong	2
		no/light	12
		light/mod	4

16% variability
close grading

II part: information concerning the compression device

Side effects of compression

K) Claustrofobic complaints

1. no

2. light

3. moderate

4. strong

no

94

light

4

no variability

strong

2

II part: information concerning the compression device

Side effects of compression

L) Decreased mobility at the level of the ankle (or wrist)

		no	20
		light	20
1.	no	moderate	12
2.	light	strong	4
3.	moderate		
4.	strong	no/light	4
		light/mod	2

6% variability
close grading

II part: information concerning the compression device

Side effects of compression

M) Decreased mobility at the level of the knee (or elbow)

1.	no		no	76
2.	light		light	14
3.	moderate		moderate	2
4.	strong	8% variability close grading	no/light	8

II part: information concerning the compression device

Side effects of compression

N) Decreased mobility at the level of the hip
(or shoulder)

1.	no	no	87
2.	light	light	7
3.	moderate	strong	2
4.	strong	no/light	4

4% variability
close grading

II part: information concerning the compression device

Mental effects

Do you find the compression device cosmetically acceptable?

1.very acceptable	V.A.	44
2.acceptable	A.	36
3.unacceptable	U.	6
4.highly unacceptable	H.U.	2
	V.A./A.	12

12% variability
close grading

II part: information concerning the compression device

General assessment

I am able to wear the compression device:

1. whole day
2. almost all day
3. some hour during the day
4. never

whole day

100

II part: information concerning the compression device

General assessment

Indicate your feeling with the compression device:

1. I feel much better	IFMB	48
2. I feel better	IFB	38
3. I feel worse	IFW	6
4. I feel much worse	IFMW	2
	IFMB/IFB	6

6% variability
close grading

II part: information concerning the compression device

General assessment

My daily activities are improved by compression

1.very much	V.M.	27
2.much	M.	33
3.unchanged	U.	24
4.worse	W.	4
	V.M./M.	11
	M./W.	1

12% variability
close grading
2 steps in 1 case

II part: information concerning the compression device

General assessment

My daily activities are impeded by compression

1.not at all	NAA	44
2.slightly	S	44
3.unchanged	U	6
4.very much		
	6% variability	
	close grading	
	NAA/S	4
	S/U	2

III part: information of questionnaire

Was every question understandable?

Yes

No

If no: indicate which question(s) and why:

yes	96
no response	4

III part: information of questionnaire

was the scoring system clear?

Yes

No

if no, indicate why:

yes	96
no response	4

III part: information of questionnaire

Where there complaints associated to your compression device not questioned?

No

Yes

if yes, indicate which complaints:

	no	95
	yes*	1
* dermatitis, scaling	no response	4

conclusion

- the proposed questionnaire seems to have a modest variability
- variability is in the range from 4 to 25% but mostly in the range from 4 to 10%.
- variability is between to close steps in the vast majority of questions.
- the questionnaire seems to be complete in every aspect.

thank you for your attention

giovanni.mosti10@gmail.com