

Measuring patient well-being: an exploratory study of the Haptotherapeutic Well-being Scale (HWS)

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Abstract

Background: The HWS is developed for measuring patient well-being and may be useful in linking the specific Haptotherapy (HT) interventions – insight-providing conversations, skills exercises, and therapeutic touch – to the various dimensions of well-being. The aim is to obtain insight into the reliability and validity of the newly developed HWS and its potential usefulness in the clinical setting.

Method: HT patients aged 18 or older ($N = 640$) completed a one-time digital questionnaire at home before treatment. A control group of 18 years or older who were not treated by a haptotherapist ($N = 151$) completed the same questionnaire at home.

Results: We demonstrated significant medium and strong correlations of four of the five HWS subscales, each with two or more Four-Dimensional Symptom Questionnaire (4DSQ) subscales and the HWS sum score with all 4DSQ subscales. The factor analysis of the HWS yielded one factor, Cronbach's Alpha: .860. The HWS sum score of the No-HT group was significantly higher than the HT group, and the same goes for all HWS subscales. Furthermore, we demonstrated significant strong correlations of all five HWS subscales with the 5-item World Health Organization Well-Being Index (WHO-5) sum score and a significant and strong correlation of the HWS sum score with the WHO-5 sum score.

Conclusion: The Haptotherapeutic Well-being Scale (HWS) appears to be reliable and can be used for measuring well-being from a haptotherapeutic perspective. Further research is needed to confirm the reliability and validity of the HWS, and its sensitivity to detect changes.

Appendices: HWS in English, Dutch, German and French.

Keywords: Haptotherapeutic Well-being Scale, Haptotherapy, Well-being, HWS, Four-Dimensional Symptom Questionnaire, 4DSQ, 5-item World Health Organization Well-Being Index, WHO-5, Patient Reported Outcome Measures, PROMs.

Introduction

According to the World Health Organization (WHO), health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organisation, 2022). Well-being is increasingly recognized as the intended outcome of therapeutic interventions within health care. Although several general measures of well-being and quality of life are currently available, no scale has yet been developed for measuring the specific contributions of HT – insight-providing conversations, skills exercises, and therapeutic touch – to the various dimensions of a patient's well-being. The HWS could be the missing link.

So far, the following questionnaires have been used in clinical HT research: the Four-Dimensional Symptom Questionnaire (4DSQ) (Terluin, Marwijk, Adèr, et al., 2006), the Pain Catastrophizing Scale (PCS) (Damme, 2002; Sullivan, Bishop & Pivik, 1995), the Scale of Body Connection (SBC) (Price & Thompson, 2007; Maas v.d., Köke, Bosscher, Hoekstra, & Peters, 2015), the Pictorial Representation of Attachment Measure (PRAM) (Bakel, Maas, Vreeswijk & Vingerhoets, 2013), and the Wijma Delivery Expectancy Questionnaire (WDEQ) (Zar & Wijma, 2001; Wijma, K. & Wijma, B., 2017). Studies using these questionnaires revealed that HT had statistically significant and clinically

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relevant effects on various aspects of well-being. For instance, research utilizing the 4DSQ showed that 76% of patients who started HT had a heightened score on distress, depression, anxiety, and/or somatization (Klabbers, 2010). After treatment with HT, the 4DSQ showed that severe symptoms of distress and depression had decreased significantly in pregnant women with an intense fear of childbirth, and the WDEQ showed a significantly larger and clinically relevant decrease of fear of childbirth in the HT group than in the control groups (Klabbers, Wijma, Paarlberg, Emons & Vingerhoets, 2017). Besides, a study using the PRAM revealed that pregnant women with severe fear of childbirth and low scores of mother-child bonding showed a significantly greater increase of mother-child bonding after HT than mothers who did not receive HT (Klabbers, Paarlberg, & Vingerhoets, 2018). In patients with chronic pain, the 4DSQ showed that symptoms of distress and anxiety had decreased significantly after HT, while the PCS revealed a significant reduction in pain catastrophizing, and this reduction remained stable over time, as did the substantial increase in body awareness that was measured in these patients using the SBC (Klabbers & Vingerhoets, 2021a).

While all the available questionnaires have demonstrated the effectiveness of HT in decreasing distress, depression, anxiety, fear of childbirth and pain catastrophizing and in increasing mother-child bonding and body awareness, they do not yet provide a comprehensive picture of the specific therapy factors that contribute to a patient's well-being in the different indications for HT. In particular, the available questionnaires do not elucidate the specific contributions of the techniques that HT employs to help patients open up to their own feelings and to those of others: the use of insightful conversations, therapeutic touch, and skills exercises to make the patients aware of their feeling capacity and to let them experience this capacity in themselves (Klabbers, 2020). The HWS may help link these specific HT interventions to the various dimensions of well-being.

Since the combination of therapeutic touch, insight providing conversations, and skills exercises constitute a coherent whole within HT from a patient perspective (Klabbers & Vingerhoets, 2021b), the specific contributions of HT to the various dimensions of a patient's well-being should be measured with a multidimensional scale with different subscales for HT's effects on a patient's physical, mental and social well-being.

There are already many different measuring instruments to measure general well-being or quality of life (Cooke, Melchert & Connor, 2016). Still, it is desirable also to have disease-specific and treatment-

specific Patient-Reported Outcome Measures (PROMs) (Meadows, 2011). Treatment-specific PROMs could help the HT to track how the therapy progresses. This is important because HT is a goal-based therapy, and we need a way of measuring the progress towards the goal. Furthermore, a HWS could enable research into the operative mechanism of HT, comparing the different specific therapy factors. For example, in a randomized controlled trial with two arms: (1) a treatment HT consisting of insight providing conversations and skills exercises and (2) a treatment HT consisting of insight providing conversations and therapeutic touch.

The multidimensional Haptotherapeutic Well-being Scale (HWS) that was developed for the present study contains fourteen questions originating from clinical HT practice, regarding aspects that are believed to influence a person's well-being: four questions regarding psychological well-being, two questions regarding physical well-being, three questions regarding autonomy, three questions regarding relationship to others, and two questions regarding touch and being touched. All these items refer to subgoals of the insight-providing conversations, the skills exercises, and the therapeutic touch in HT. (See appendix 1: Haptotherapeutic Well-being Scale (HWS). For a version in Dutch, German, and French, see appendices 2-4.) There could be a misunderstanding about the HWS-subscale touch and being touched. That's why we have added an explanation: In HT, it is assumed that touching and being touched in one's own life is essential for the patient's well-being, so it is shown, practiced and stimulated to apply in one's own life (Klabbers, 2021). The HWS-subscale touch and being touched concerns daily life with loved ones and not therapeutic touch.

Aims

The aim is to obtain insight into the reliability and validity of the newly developed HWS and its potential usefulness in the clinical setting.

Method

Participants and procedure

In the period from 26-4-2021 to 12-6-2021, health care haptotherapists (members of the Association of Haptotherapists in the Netherlands) were requested to invite their patients aged 18 years or older to complete a one-time digital questionnaire at home. Patients ($N = 1032$) who were willing to participate were asked to sign an Informed Consent form before they received the URL of the research website and a personal login code.

The control group consisted of people who were not treated by a haptotherapist. They were recruited

between 9-2-2022 and 20-2-2022 via LinkedIn contacts of the researchers. These participants ($N = 151$) completed an informed consent form before completing the questionnaire.

To obtain insight into the reliability and validity of the newly developed HWS and its potential usefulness in the clinical setting, we examined the associations between the (subscales of the) Haptotherapeutic Well-being Scale (HWS), on the one hand, and the Four-Dimensional Symptom Questionnaire (4DSQ) and the 5-item World Health Organization Well-being Index (WHO-5), on the other.

Ethical Approval

The Medical Ethical Review Committee of Brabant decided that this scientific research is not subject to the Medical Research Involving Human Subjects Act (WMO). Subsequently, the study was approved by the Ethical Review Committee of Tilburg University (ETC), which assesses the scientific and ethical aspects of research projects that are not subject to the WMO.

Measures

The digital questionnaire that was used in this study contained sociodemographic questions, the Haptotherapeutic Well-being Questionnaire (HWS), the Four-Dimensional Symptom Questionnaire (4DSQ), and the 5-item World Health Organization Well-Being Index (WHO-5).

HWS: The HWS is a compilation of fourteen clinical questions (see attachments 1-4), answered on a 5-point Likert scale (Likert, 1932). The questionnaire gives an impression of a person's well-being from a haptotherapeutic perspective (Klabbers & Hagg, 2021). The Cronbach's Alpha of the HWS ranged from .78 to .89, measured at three different time points in a study ($N = 24$) on the effects of HT on patients with chronic pain (Klabbers & Vingerhoets, 2021a).

4DSQ: The 4DSQ comprises 50 items concerning psychological and psychosomatic symptoms listed in the DSM-4 (American Psychiatric Association, 1994). Symptoms of distress, anxiety, depression, and somatization are measured as separate dimensions (Terluin et al., 2006). The 4DSQ scales have a high internal consistency (Cronbach's Alpha: 0.84 to 0.94) (Terluin et al., 2006). The 4DSQ is frequently used in HT (Klabbers, 2013), and is included in the reporting guideline for HT (Intramed, 2022).

WHO-5: The WHO-5 contains five non-invasive and straightforward questions that explore the respondents' subjective well-being. The scale has adequate validity both as a screening tool for depression and as an outcome measure in clinical trials and has been applied successfully across a wide range of study fields (Topp, Østergaard, Søndergaard & Bech, 2015).

Results

Of the 1032 provided login codes, 640 (62.1%) were used to complete the survey's digital questionnaire. The patient characteristics of these participants are presented in Table 1. Of these 640 patients, 72.2% ($n = 462$) had one or more increased 4DSQ scores. The Distress score was increased in 66.6% ($n = 426$), the Depression score was increased in 25.9% ($n = 166$) and the Somatization score was increased in 39.2% ($n = 251$). The factor analysis of the HWS yielded one factor, Cronbach's Alpha: .860 ($N = 640$). See Table 2 for all inter-subscale correlations of the HWS. Table 3 shows the correlations between the HWS scores and the 4DSQ scores.

Table 1: Patient characteristics

HT patients	$N = 640$	
Age in years ($Sd: 12.9$)	$M = 46$	
	n	$\%$
Primary education	8	1.3
Secondary vocational education	125	19.5
Higher professional education	322	50.3
University education	185	28.9

HT: Haptotherapy

Table 2: Inter-subscale correlations of the HWS

(medium correlations are shaded gray; strong are in bold)

<i>N</i> = 640	a	b	c	d	e
a Psychological well-being (Q: 1, 9, 11, 14)	1				
b Physical well-being (Q: 2, 3)	.451**	1			
c Autonomy (Q: 4, 7, 10)	.634**	.370**	1		
d Relations with others (Q: 5, 6, 8)	.555**	.370**	.477**	1	
e Touch & being touched (Q: 12, 13)	.311**	.111**	.140**	.339**	1

HWS: Haptotherapeutic Well-being Scale. **Q:** Question. ****** Correlation is significant at the 0.01 level (2-tailed).

Table 3: Correlations HWS - 4DSQ (medium correlations are shaded gray; strong are in bold)

HT-patients: <i>N</i> = 640	HWS			4DSQ			
	<i>M</i>	<i>Sd</i>	α	Soma.	Distr.	Fear	Depr.
Psychological well-being (Q: 1, 9, 11, 14)	12.4	2.9	.79	.370**	.638**	.372**	.577**
Physical well-being (Q: 2, 3)	5.83	1.7	.55	.492**	.399**	.271**	.274**
Autonomy (Q: 4, 7, 10)	9.4	2.6	.75	.262**	.462**	.316**	.367**
Relations with others (Q: 5, 6, 8)	10.9	2.4	.68	.268**	.402**	.358**	.382**
Touch & being touched (Q: 12, 13)	6.8	2.1	.90	.087*	.197**	.117*	.170**
HWS sum score (Q: 1-14)	45.2	8.4	.86	.402**	.603**	.409**	.516**

HWS: Haptotherapeutic Well-being Scale. **4DSQ:** Four Dimensional Symptom Questionnaire. **Soma.:** Somatisation. **Distr.:** Distress. **Depr.:** Depression. **Q:** Question. ***** Correlation is significant at the 0.05 level (2-tailed). ****** Correlation is significant at the 0.01 level (2-tailed).

Table 4 displays the LinkedIn participants' characteristics. The correlations between the HWS scores and the WHO-5 scores of the LinkedIn participants are presented in Table 5.

Table 4: LinkedIn-participants characteristics

No-HT patients	<i>N</i> = 151	
Age in years (<i>Sd</i> : 15.1)	<i>M</i> = 54	
	<i>n</i>	%
Primary education	1	.7
Secondary vocational education	25	16.6
Higher professional education	78	51.7
University education	47	31.1

HT: Haptotherapy

Table 5: Correlations HWS - WHO-5 (strong correlations are in bold)

No-HT patients: <i>N</i> = 151	HWS			WHO-5
	<i>M</i>	<i>Sd</i>	α	
Psychological well-being (Q: 1, 9, 11, 14)	14.7	2.7	.77	.856**
Physical well-being (Q: 2, 3)	7.1	1.6	.50	.626**
Autonomy (Q: 4, 7, 10)	12.0	1.9	.64	.723**
Relations with others (Q: 5, 6, 8)	12.8	1.4	.37	.620**
Touch & being touched (Q: 12, 13)	7.5	2.2	.92	.577**
HWS sum score (Q: 1-14)	54.2	6.8	.82	.726**

HWS: Haptotherapeutic Well-being Scale. **WHO-5:** 5-item World Health Well-being Scale. **HT:** Haptotherapy. **Q:** Question. ****** Correlation is significant at the 0.01 level (2-tailed).

The HWS subscales scores and the HWS sum score of the No-HT group were all significantly higher than the HWS subscales scores and the HWS sum score of the HT group, see Table 6.

Table 6: HWS score HT and No-HT

	HT		No-HT		MD	<i>p</i>
	<i>N</i> = 640		<i>N</i> = 151			
	<i>M</i>	<i>Sd</i>	<i>M</i>	<i>Sd</i>		
Psychological well-being (Q: 1, 9, 11, 14)	12.6	2.9	14.7	2.7	2.1	< .001
Physical well-being (Q: 2, 3)	5.8	1.7	7.1	1.6	1.3	< .001
Autonomy (Q: 4, 7, 10)	9.4	2.6	12.0	1.9	2.6	< .001
Relations with others (Q: 5, 6, 8)	10.9	2.4	12.8	1.4	2.0	< .001
Touch & being touched (Q: 12, 13)	6.8	2.1	7.5	2.2	.8	< .001
HWS sum score (Q: 1-14)	45.2	8.4	54.2	6.8	9.0	< .001

HWS: Haptotherapeutic Well-being Schale. **HT:** Haptotherapy. **Q:** Question.

Discussion

This study aimed to obtain insight into the reliability and validity of the newly developed HWS and its potential usefulness in the clinical setting.

The percentage of patients with one or more increased 4DSQ scores (72.1%) in this study corresponds to the results of a file review ($N = 114$), in which this percentage was 76% (Klabbers, 2010), which is an indication that the patient population was similar in this respect.

We demonstrated significant medium and strong correlations of four of the five HWS subscales, each with two or more 4DSQ subscales, and the HWS sum score with all 4DSQ subscales. Furthermore, we demonstrated significant strong correlations of all HWS subscales with the WHO-5 sum score and a significant and strong correlation of the HWS sum score with the WHO-5 sum score.

This study was conducted during the Coronavirus (COVID-19) pandemic, with a ban on shaking hands and hugs. It is conceivable that this ban may have had a limiting influence on the participants' responses on the HWS subscale 'touch and being touched'.

Cronbach's Alpha of the HWS subscale 'relationship to others' was acceptable in the HT group ($N = 640$), but not in the No-HT group ($N = 151$). Further research is necessary to clear this difference. Omitting one or more of the three questions of the subscale 'relations to others' did not change Cronbach's Alpha of the HWS, indicating that these questions can be maintained. Further research could show whether these questions can be reformulated so that the internal consistency of this subscale can improve.

The factor analysis of the HWS yielded one factor, although the HWS contains five subscales. The explanation for this could be that the various therapy factors, on which the questions are based

form a coherent whole that together determine well-being from a haptotherapeutic perspective. The fact that the different haptotherapy factors form a coherent whole was previously established in a study 'Satisfaction and specific and non-specific therapy factors: haptotherapy from a patient perspective' (Klabbers & Vingerhoets, 2021b).

The HWS appears to be reliable: Cronbach's Alpha of the HWS in this study was .86. This result is in line with the results of a study on the effect of HT on patients with chronic pain, in which Cronbach's Alpha of the HWS, measured at three different time points, ranged from .78 to .89 (Klabbers & Vingerhoets, 2021a). The HWS has only fourteen questions, which makes the HWS very suitable in HT practice as a quick scan of well-being.

Furthermore, the HWS is not specifically complaint-oriented, which makes it suitable for comparing the effects of HT for different indications, even if, for example, patients do not have raised scores on the 4DSQ or other complaint-oriented questionnaires (Questionnaires in care, 2022).

Besides, the HWS could provide recognizable starting points for a meaningful therapist-patient conversation about the possible treatment goals, while it can also be used to evaluate the effects of HT.

The mean HWS sum score of the HT group was 45.2, versus a score of 54.2 in the No-HT group. If these scores are used as cut-off point for the HWS, based on our research there are three groups with a different probability of one or more strongly increased 4DSQ scores: (1) HWS sum score 14-44: 47.1%; (2) HWS sum score 45-53: 14.8%; and (3) HWS sum score 54-70: 1.2%. In particular, the cut-off score of 54 might be useful in practice, i.e., an

HWS score lower than 55 should always be an indication for further use of the 4DSQ, and it might be interesting to compare the HWS score of different indication groups and to compare the possible differences between men and women.

Recommendations:

The HWS sum score can be used as an outcome measure to evaluate haptotherapy outcomes among patients with a wide variety of indications and the subscales can be used to evaluate in which specific areas the improvements are mainly found. Further research is needed to confirm the reliability and validity of the HWS and its capacity to detect clinically meaningful changes.

Strengths and limitations

There was a risk of selection bias, as 37.9% of the distributed login codes were not used. However, the response rate of 62.1% was very high. Another limitation is that this study was conducted during the Coronavirus (COVID-19) pandemic, with a ban on shaking hands and hugs. It is conceivable that this ban may have had a limiting influence on the participants' responses on the HWS subscale 'touch and being touched', therefore it may be necessary to replicate this study in a post-corona period.

Conclusion

The Haptotherapeutic Well-being Scale (HWS) appears to be reliable. Further research is needed to confirm the reliability and validity of the HWS and its capacity to detect clinically meaningful changes.

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Declaration of Competing Interests

The authors declare that they have no competing interests.

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References

- American-Psychiatric-Association (1994). *Diagnostic and statistical manual of mental disorders* (DSM-IV). Washington, DC: American Psychiatric Association.
- Association of Haptotherapists (2022). Dutch: *Vereniging van Haptotherapeuten*. Beroepsvereniging van gezondheidszorghaptotherapeuten in Nederland; Available from: www.haptotherapeuten-vvh.nl.
- Bakel, H. J. van, Maas, A. J. B., Vreeswijk, C. M., & Vingerhoets, A. J. J. M. (2013). Pictorial representation of attachment: measuring the parent-fetus relationship in expectant mothers and fathers. *BMC pregnancy and childbirth*, 13(1), 1-9.
- Cooke, P. J., Melchert, T. P., & Connor, K. (2016). Measuring well-being: A review of instruments. *The Counseling Psychologist*, 44(5), 730-757.
- Damme, S. V. (2002). *Catastroferen over pijn: Pain Catastrophizing Scale-Dutch Version* (PCS-DV); Available from <http://www.bsw.ugent.be/VVGP/fichePCS.pdf>
- Intramed (2002). *Intramed online for haptotherapy*. Available from: <https://www.intramed.nl/wp-content/uploads/Intramed-Online-voor-haptotherapie.pdf>
- Klabbers, G. A. (2010). 4DKL onderzoek haptotherapie. Report. Haptotherapie Nederland.
- Klabbers, G. A. (2013). Four-Dimensional Symptom Questionnaire (4DSQ) in the Primary Healthcare Practice of Therapists. *International Journal of Haptonomy and Haptotherapy*, 3, 9-24.
- Klabbers, G. A. (2020). Impaired ability to feel: indication for haptotherapy. *International Journal of Haptonomy and Haptotherapy*, 3, 12-14.
- Klabbers, G. A. (2021). Hapto-educatie: een kerntaak van de hands-on gezondheidszorghaptotherapeut?; Available from: <https://www.gertklabbers.nl/wp-content/uploads/2021/01/Hapto-educatie.pdf>.
- Klabbers, G. A., Hagg, J. W. (2021). Haptotherapeutic Well-being Scale (HWS): Digital Dutch version; Available from: www.gertklabbers.nl/vragenlijst
- Klabbers, G. A., Paarlberg, K. M., & Vingerhoets, A. J. J. M. (2018). Does haptotherapy benefit mother-child bonding in women with high fear of childbirth? *International Journal of Haptonomy and Haptotherapy*, 3, 1-7.

- Klabbers, G. A., & Vingerhoets, A. J. J. M. (2021a). What is the effect of haptotherapy on patients with chronic pain? *International Journal of Haptonomy and Haptotherapy*, 1, 1-9.
- Klabbers, G. A., & Vingerhoets, A. J. J. M. (2021b). Satisfaction and specific and non-specific therapy factors: haptotherapy from a patient perspective. *International Journal of Haptonomy and Haptotherapy*, 3, 20-29.
- Klabbers, G. A., Wijma, K., Paarlberg, K. M., Emons, W. H. M., & Vingerhoets, A. J. J. M. (2017). Haptotherapy as a new intervention for treating fear of childbirth: a randomized controlled trial. *Journal of psychosomatic obstetrics and gynecology*, 40(1), 38-47.
<https://doi.org/10.1080/0167482X.2017.1398230>
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22 140, 55.
- Maas, L. C. C. v. d., Köke, A., Bosscher, R., Hoekstra, T., & Peters, M. (2015). *Measuring Body Awareness with the Scale of Body Connection: Structure and Reliability of the Dutch Translation Psychomotor Therapy in Chronic Pain Rehabilitation Enhancing body awareness in multidisciplinary treatment*. Amsterdam: Vrije Universiteit Amsterdam.
- Meadows, K. A. (2011). Patient-reported outcome measures: an overview. *British Journal of Community Nursing*, 16(3), 146-151.
- Price, C. J., Thompson, E. A., & Cheng, S. C. (2017). Scale of Body Connection: A multi-sample construct validation study. *Plos One*, 12(10).
<https://doi.org/10.1371/journal.pone.0184757>
- Questionnaires in care (2022). (Dutch: *Meetinstrumenten in de zorg*). Available from: www.meetinstrumentenzorg.nl.
- Sullivan, M. J. L., Bishop S. R., & Pivik J. (1995). The Pain Catastrophizing Scale: development and validation. *Psychological Assessment*, 7(4), 524-532.
- Terluin, B., Marwijk, H. W. van, Adèr, H. J., Vet, H. C. de, Penninx, B. W., Hermens, M. L., Boeijen C. A. van, Balkom A. J. L. M. van, Klink J. J. L. van der & Stalman, W. A. (2006). The Four-Dimensional Symptom Questionnaire (4DSQ): a validation study of a multidimensional self-report questionnaire to assess distress, depression, anxiety, and somatization. *BMC Psychiatry*, 6(1), 1-20.
- Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: a systematic review of the literature. *Psychotherapy and psychosomatics*, 84(3), 167-176.
- Wijma K., Wijma B. (2017). *A Woman Afraid to Deliver: How to Manage Childbirth Anxiety*. In: Paarlberg K. M., Wiel H. van de (eds) *Bio-Psycho-Social Obstetrics and Gynecology*. Springer, Cham.
https://doi.org/10.1007/978-3-319-40404-2_1
- World Health Organization (2022). *Definition Health*. Available from: <https://www.who.int/about/governance/constitution>
- Zar, M., Wijma, K., Wijma, B. (2001). *Evaluation of the Wijma Delivery Expectancy/Experience (W-DEQ) as a diagnostic test for disabling fear of childbirth*. In: Zar M., editor. *Diagnostic aspects of fear of childbirth*. Volume Fifth Article, edn. Linköping: Linköping University.

Appendix 1 (English version): Haptotherapeutic Well-being Scale (HWS)

The HWS contains 14 clinical questions, which are answered with a score on a 5-point Likert scale. The questionnaire provides an indication of a person's well-being from a haptotherapeutic perspective. The HWS has five subscales: psychological well-being (1, 9, 11, 14); physical well-being (2, 3); autonomy (4, 7, 10); relationship to others (5, 6, 8); touch and being touched (12, 13).

14 questions about the past week (score 1 to 5):**Circle your answer to each question**

1	How satisfied were you with your well-being in life? (completely unhappy - very happy)	1	2	3	4	5
2	How did you experience your physical movements? (clumsy and stiff - smooth and harmonious)	1	2	3	4	5
3	How was your muscle tone? (very high muscle tone - relaxed)	1	2	3	4	5
4	Were you confident? (very insecure - full of confidence)	1	2	3	4	5
5	Did physical contact startle you? (very much - not at all)	1	2	3	4	5
6	Did you trust other people? (very suspicious - full of confidence)	1	2	3	4	5
7	Did you rely on your own capabilities? (adapted myself a lot - followed my own course)	1	2	3	4	5
8	How was your contact with others? (distant - personal, profound)	1	2	3	4	5
9	Did you experience freedom in your life? (very limited - uninhibited and free)	1	2	3	4	5
10	Did you feel responsible for your own life? (was being lived - went my own way)	1	2	3	4	5
11	Have you enjoyed life? (it wasn't fun – pure enjoyment)	1	2	3	4	5
12	Did you touch those dear to you? (not at all - very often)	1	2	3	4	5
13	Have you been touched by people who are dear to you? (not at all - very often)	1	2	3	4	5
14	Did you feel an inner peace? (never - always)	1	2	3	4	5

Appendix 2 (Dutch version): Haptotherapeutische Welbevinden Schaal (HWS)

De HWS bevat 14 klinische vragen die elk worden beantwoord met een score op een 5-punts Likert schaal. De vragenlijst geeft een indruk van iemands welbevinden vanuit haptotherapeutisch perspectief. De HWS heeft vijf subschalen: psychisch welbevinden (1, 9, 11, 14); lichamenlijk welzijn (2, 3); autonomie (4, 7, 10); relatie met anderen (5, 6, 8); aanraken en aangeraakt worden (12, 13).

14 vragen over de afgelopen week (score 1 t/m 5)	Omcirkel uw antwoord per vraag				
1 Hoe tevreden was u over uw levenswelzijn? (volkomen ongelukkig - super gelukkig)	1	2	3	4	5
2 Hoe verliep uw lichamenlijk bewegen? (onhandig en stijf - soepel en harmonieus)	1	2	3	4	5
3 Hoe was uw spierspanning? (zeer hoge spierspanning - ontspannen)	1	2	3	4	5
4 Had u zelfvertrouwen? (zeer onzeker - vol zelfvertrouwen)	1	2	3	4	5
5 Schrok u bij lichamenlijk contact? (heel erg - helemaal niet)	1	2	3	4	5
6 Had u vertrouwen in uw medemens? (zeer wantrouwend - vol vertrouwen)	1	2	3	4	5
7 Ging u uit van uw eigen capaciteiten? (paste mij erg aan - volgde mijn eigen koers)	1	2	3	4	5
8 Hoe verliep het contact met anderen? (afstandelijk - persoonlijk, diepgaand)	1	2	3	4	5
9 Ervaarde u vrijheid in uw leven? (zeer beperkt - onbevangen en vrij)	1	2	3	4	5
10 Voelde u zich verantwoordelijk voor uw eigen leven? (werd geleefd - ging mijn eigen gang)	1	2	3	4	5
11 Heeft u van het leven genoten? (het was niet leuk - volop genieten)	1	2	3	4	5
12 Heeft u de mensen die u dierbaar zijn, aangeraakt? (helemaal niet - heel vaak)	1	2	3	4	5
13 Werd u aangeraakt door mensen die u dierbaar zijn? (helemaal niet - heel vaak)	1	2	3	4	5
14 Voelde u innerlijke rust? (nooit - altijd)	1	2	3	4	5

Appendix 3 (German version): Haptotherapeutische Wohlfühlskala (HWS)

Die WSH enthält 14 klinischen Fragen, die jeweils beantwortet werden mit einer Bewertung auf einer 5-Punkte Likert Skala. Der Fragebogen vermittelt einen Eindruck vom Wohlbefinden einer Person aus haptotherapeutischer Sicht. Die HWS hat fünf Subskalen: psychisches Wohlbefinden (1, 9, 11, 14); körperliches Wohlbefinden (2, 3); Autonomie (4, 7, 10); Beziehung zu anderen (5, 6, 8); Berühren und berührt werden (12, 13).

14 Fragen zur letzten Woche (Punktzahl 1 bis 5)		Kreisen Sie Ihre Antwort pro Frage ein				
1	Wie zufrieden waren Sie mit Ihrem Lebenswohlbefinden? (völlig unglücklich - super glücklich)	1	2	3	4	5
2	Wie verlief Ihre körperliche Bewegung? (sehr hohe Muskelspannung - entspannt)	1	2	3	4	5
3	Wie war Ihre Muskelspannung? (sehr hohe Muskelspannung - entspannt)	1	2	3	4	5
4	Hatten Sie Selbstvertrauen? (sehr unsicher - voller Zuversicht)	1	2	3	4	5
5	Erschreckten Sie bei körperlichem Kontakt? (sehr stark - überhaupt nicht)	1	2	3	4	5
6	Hatten Sie Vertrauen in Ihre Mitmenschen? (sehr misstrauisch - voller Zuversicht)	1	2	3	4	5
7	Gingen Sie von Ihren eigenen Fähigkeiten aus? (passte mir sehr an - folgte meinem eigenen Kurs)	1	2	3	4	5
8	Wie verlief der Kontakt mit anderen? (distanziert - persönlich, tiefgründig)	1	2	3	4	5
9	Erfuhren Sie Freiheit in Ihrem Leben? (sehr begrenzt – unbefangen und frei)	1	2	3	4	5
10	Fühlten Sie sich für Ihr eigenes Leben verantwortlich? (wurde gelebt - ging meinen eigenen Weg)	1	2	3	4	5
11	Haben Sie das Leben genossen? (es hat keinen Spaß gemacht - gänzlich genossen)	1	2	3	4	5
12	Haben Sie diejenigen, die Sie lieben, berührt? (überhaupt nicht - sehr oft)	1	2	3	4	5
13	Wurden Sie von Menschen berührt, die Ihnen lieb sind? (überhaupt nicht - sehr oft)	1	2	3	4	5
14	Fühlten Sie einen inneren Frieden? (nie – immer)	1	2	3	4	5

Appendix 4 (French version): Échelle de bien-être Haptothérapeutique (ÉBH)

Le ÉBH contient 14 questions cliniques dont les réponses sont marqué sur une échelle de Likert à 5 points. Le questionnaire donne une impression du bien-être d'une personne d'un point de vue haptothérapeutique. Le HWS comporte cinq sous-échelles: le bien-être psychologique (1, 9, 11, 14); bien-être physique (2, 3); autonomie (4, 7, 10); relation avec les autres (5, 6, 8), toucher et être touché (12, 13).

14 questions sur la semaine dernière (note de 1 à 5) Encerclez votre réponse par question

1	Dans quelle mesure étiez-vous satisfait de votre bien-être dans votre vie? (complètement malheureux - super heureux)	1	2	3	4	5
2	Comment s'est passé votre mouvement physique? (maladroit et raide – souple et harmonieux)	1	2	3	4	5
3	Comment était votre tonus musculaire? (tonus musculaire très élevé - détendu)	1	2	3	4	5
4	Aviez-vous confiance en vous-même? (très peu sûr de soi- plein de confiance)	1	2	3	4	5
5	Etiez-vous surpris du contact physique? (beaucoup - pas du tout)	1	2	3	4	5
6	Aviez-vous confiance en votre prochain? (très méfiant - plein de confiance)	1	2	3	4	5
7	Aviez-vous confiance en votre propres capacités? (m'adapte bien - ai suivi mon propre chemin)	1	2	3	4	5
8	Comment s'est passé le contact avec les autres? (distant - personnel, profond)	1	2	3	4	5
9	Avez-vous expérimenté la liberté dans votre vie? (très limité – sans inhibition)	1	2	3	4	5
10	Vous êtes-vous senti responsable de votre propre vie? (ai été vécu - ai suivi mon propre chemin)	1	2	3	4	5
11	Avez-vous apprécié la vie? (ce n'était pas plaisant - apprécié totalement)	1	2	3	4	5
12	Avez-vous touché physiquement les personnes qui vous sont chères? (pas du tout - très souvent)	1	2	3	4	5
13	Avez-vous été touché physiquement par des personnes qui vous sont chères? (pas du tout - très souvent)	1	2	3	4	5
14	Avez-vous ressenti une paix intérieure? (jamais - toujours)	1	2	3	4	5