Appendix 1 - Final Instrument Developed Using the Delphi Method

Procedures for Sensory Motor Stimulation Used by Physiotherapists in Neonatal Intensive Care Units (NICUs)

Part I

Enter your professional registration number (CREFITO): _____

What is your highest level of educational attainment?
( ) Undergraduate degree ( ) Master's degree ( ) Other. Please specify: _____
( ) Specialization ( ) Doctorate

Specialization
( ) Neonatal Intensive Care Unit
( ) Intermediate Care Unit
( ) Pediatric Intensive Care Unit – End of questionnaire
( ) Neonatal and Pediatric Intensive Care Unit

How long have you been working in Neonatal Physical Therapy?
( ) Less than 1 year ( ) 2 to 3 years ( ) 5 to 10 years
( ) 1 to 2 years ( ) 3 to 5 yearss ( ) More than 10 years

Which region is the hospital where you work?
( ) North ( ) Southeast ( ) Midwest
( ) South ( ) Northeast

What type of hospital do you work for?
( ) Public ( ) Private ( ) Non-profit

Is the hospital a Baby-Friendly Hospital (*Hospital Amigo da Criança*)?
( ) Yes ( ) No

Part II

Below are the sensory motor stimulation procedures are described below.
Please indicate which procedures are used in your service.

Tactile stimulation procedures:

A) PROCEDURE: *SKIN-TO-SKIN CONTACT OR KANGAROO POSITION*

1. Do you use *Skin-to-Skin Contact* or the *Kangaroo Position*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often do you use this procedure? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using the *Skin-to-Skin Contact* or *Kangaroo Position*?
( ) No ( ) Yes. If yes, please specify: _____

4.1. If yes, what type of training? _____

5. Based on the following aspects, did the *Skin-to-Skin Contact* or *Kangaroo Position* induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
Heart rate (HR): ( ) Increased ( ) Remained stable ( ) Decreased
Respiratory rate (RR): ( ) Increased ( ) Remained stable ( ) Decreased
Oxygen saturation (SpO_2): ( ) Increased ( ) Remained stable ( ) Decreased

5.2. 5.2. In the Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptoms not listed above? If yes, please specify: _____

5.3 In your opinion, did the changes observed in the newborn after applying the ***Skin-to-Skin Contact*** or ***Kangaroo Position*** contribute to an improvement in their clinical condition? ( ) Yes ( ) No

B) PROCEDURE: *GENTLE TOUCH*

1. Do you use *Gentle Touch*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often do you use this procedure? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received or certification for using the *Gentle Touch* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the *Gentle Touch procedure induce any changes in the newborn during its application:*

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2 Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom. If yes, please specify: _____

5.3 In your opinion, did the changes induced in the newborn by the ***Gentle Touch*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

C) PROCEDURE: *FACILITATED CONTAINMENT*

1. Do you use *Facilitated Containment*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification on how to use the *Facilitated Containment* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the *Facilitated Containment* procedure induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptoms? If yes, please specify: _____

5.3 In your opinion, did the changes induced in the newborn by applying the ***Facilitated Containment*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

D) PROCEDURE: *TACTILE KINESTHETIC STIMULATION*

1. Do you use *Tactile Kinesthetic Stimulation*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using the *Tactile Kinesthetic Stimulation* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the *Tactile Kinesthetic Stimulation* procedure induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify: _____

5.3 In your opinion, did the changes induced in the newborn by the ***Tactile Kinesthetic Stimulation*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

E) PROCEDURE: *HOT TUBE OR IMMERSION BATH*

1. Do you use *Hot Tube or Immersion Bath*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using the *Hot Tube or Immersion Bath* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5) Based on the following aspects, did the *Hot Tube or Immersion Bath* procedure induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify: _____

5.3 In your opinion, did the changes observed in the newborn after the ***Hot Tube or Immersion Bath*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

F) PROCEDURE: *THERAPEUTIC MASSAGE*

1. Do you use *Therapeutic Massage*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using *Therapeutic Massage* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the *Therapeutic Massage* procedure induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify: _____

5.3 In your opinion, did the changes induced in the newborn by the ***Therapeutic Massage*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

G) VESTIBULAR STIMULATION TECHNIQUES:

• Procedure: *Hammock*

1. Do you use *Hammock*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using the *Hammock* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the *Hammock* procedure induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify: _____

5.3 In your opinion, did the changes observed in the newborn after applying the ***Hammock*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

• Procedure: *Rocking* or *Gentle Swaying*

1. Do you use *Rocking or Gentle Swaying*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using the *Rocking or Gentle Swayin*g procedures?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the *Rocking or Gentle Swaying* technique induce any changes in the newborn during its application:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify _____

5.3 In your opinion, did the changes observed in the newborn after applying the ***Rocking or Gentle Swinging*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

H) PROTOCOLS FOR OLFACTORY AND GUSTATORY STIMULATION:

• Procedure: *Breastfeeding*

1. Do you encourage *Breastfeeding*?
( ) Yes - Continue answering
( ) No - Question forwarded - Who offers breastfeeding guidance? - Automatically proceeds to the next step

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification on how to follow the *Breastfeeding* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Which of the following items do you recommend for *Breastfeeding*?
( ) Positioning
( ) Correct latch
( ) Breast care

( ) Procedures for milk extraction
( ) Other guidance. Please, specify: _____

• Procedure: *Cotton/Gauze Soaked in Vanilla Essence*

1. Do you use *Cotton/Gauze Soaked in Vanilla Essence*?
( ) Yes - continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often do you use this procedure? (Specify the frequency, such as daily, weekly or monthly, and how many times a day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using *Cotton/Gauze Soaked in Vanilla Essence*?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did th *Cotton/Gauze Soaked in Vanilla Essence* procedure induce any changes in the newborn:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify _____

5.3 In your opinion, did the changes observed in the newborn after applying ***Cotton/Gauze Soaked in Vanilla Essence*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

I) PROCEDURE: *GLUCOSE SOLUTION*

1. Do you use *Glucose Solution*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2.) Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification for using the *Glucose Solution* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the following aspects, did the application of *Glucose Solution* induce any changes in the newborn:

5.1. Cardiorespiratory aspects:
HR: ( ) Increased ( ) Remained stable ( ) Decreased
RR: ( ) Increased ( ) Remained stable ( ) Decreased
SpO_2: ( ) Increased ( ) Remained stable ( ) Decreased

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify _____

5.3 In your opinion, did the changes induced in the newborn by applying the ***Glucose Solution*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

J) VISUAL STIMULATION PROCEDURES:

• Procedure: *Face to face*

1. Do you use *Face to Face*?
( ) Yes - Continue answering
( ) No - automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification on how to use the *Face to Face* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the aspects listed below, did the *Face to Face* procedure induce any changes in the newborn during its application:

5.1 This procedure helped the newborn to:
( ) Maintain visual focus
( ) Maintain visual tracking of the target object
( ) Display Focus
( ) Show Interest in Novelty or change
( ) Perform Movements
( ) Remain alert/calm
( ) Maintain attention

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify: _____

5.3 In your opinion, did the changes induced in the newborn by the application of the ***Face to Face*** procedure contribute to the improvement of their clinical condition? ( ) Yes ( ) No

B) Procedure: *Black and White Pattern Cards*

1. Do you use *Black and White Pattern Cards*?
( ) Yes - Continue answering
( ) No - Automatically move on to the next procedure

2. Are there any age criteria for using this procedure?
( ) Yes ( ) No ( ) I don´t know

2.1 If yes, what are the criteria?
Descriptive item: _____

3. How often is this procedure used? (Specify the frequency, such as daily, weekly, or monthly, and the number of times per day or week)

	1x	2x	3x	4x	5x	6x	7x
Daily							
Weekly							
Monthly							

4. Have you received training or certification on how to use of the *Black and White Pattern Cards* procedure?
( ) No ( ) Yes. If yes, please specify: _____

5. Based on the aspects listed below, did the *Black and White Pattern Cards* procedure induce any changes in the newborn during its application:

5.1 This procedure helped the newborn to:
( ) Maintain visual focus
( ) Maintain visual tracking of the target object
( ) Display Focus
( ) Show Interest in Novelty or change
( ) Perform Movements
( ) Remain alert/calm
( ) Maintain attention

5.2. Behavioral State Model (Brazelton, 1973):
Deep sleep: ( ) Present ( ) Not present
Active sleep: ( ) Present ( ) Not present
Drowsiness: ( ) Present ( ) Not present
Quiet alert: ( ) Present ( ) Not present
Active awakening: ( ) Present ( ) Not present
Intense crying: ( ) Present ( ) Not present

Did the newborn exhibit any other symptom? If yes, please specify: _____

5.3 In your opinion, did the changes observed in the newborn after applying the ***Black and White Pattern Cards*** procedure contribute to an improvement in their clinical condition? ( ) Yes ( ) No

Is multimodal stimulation performed as part of your service?
( ) Yes – Continue with the following questions
( ) No – Poceed to the next question

What combination of multimodal stimulation do you use?
Descriptive item _____

What effects are observed in the newborn?
Descriptive item _____

OTHER PROCEDURES

Do you use any other procedure not described above?
( ) Yes ( ) No

If yes, please specify and describe the procedure(s): _____