

# The application of whole-body vibration for treatment of postpartum pelvic floor muscle dysfunction

## A qualitative study to analyse the time and content related structure of training

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### Aims of study

This is the first study to identify temporal and content related structure of whole-body vibration (WBV) training for treatment of postpartum pelvic floor muscle (PFM) dysfunction. Additionally, necessary prerequisites are determined.



Fig. 1 Three common WBV devices (from left to right: "SRT Zeptor", "Galileo" and "Power Plate")

### Pre-Study

#### Systematic Review

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MEDLINE,  
Cochrane Library and  
grey literature research

- 49 studies analysed using PRISMA
- Evidence Summary includes 2 studies: one prospective study [1] and one RCT [2]
- Evaluation of quality using SIGN Checklist

#### International Guideline Research

Analysis of  
28 guidelines  
from 9 countries

→ No recommendations:

- for WBV in any guideline
- for training parameters or exercises
- for periodization of training

Lack  
of  
evidence

### Main Study

qualitative study design

#### Recruitment (6 months)

- Gatekeeper contact: international urogynaecological organisations
- Expert research through internet, social networks and snowball method

#### Individual interviews (n = 7)

- Theoretical, heterogenous sampling: physiotherapists, osteopathic practitioners, urogynaecological physicians, sports scientists
- Expertise [years]: M = 23; SD = 6,5; min. = 10; max. = 32

#### Transcription

With automatic AI  
transcription tool  
"AmberScript"

#### Process of analysis

according to the structuring content analysis approach by Kuckartz and Rädiker [3] using computer-assisted software "MAXQDA"

### Results

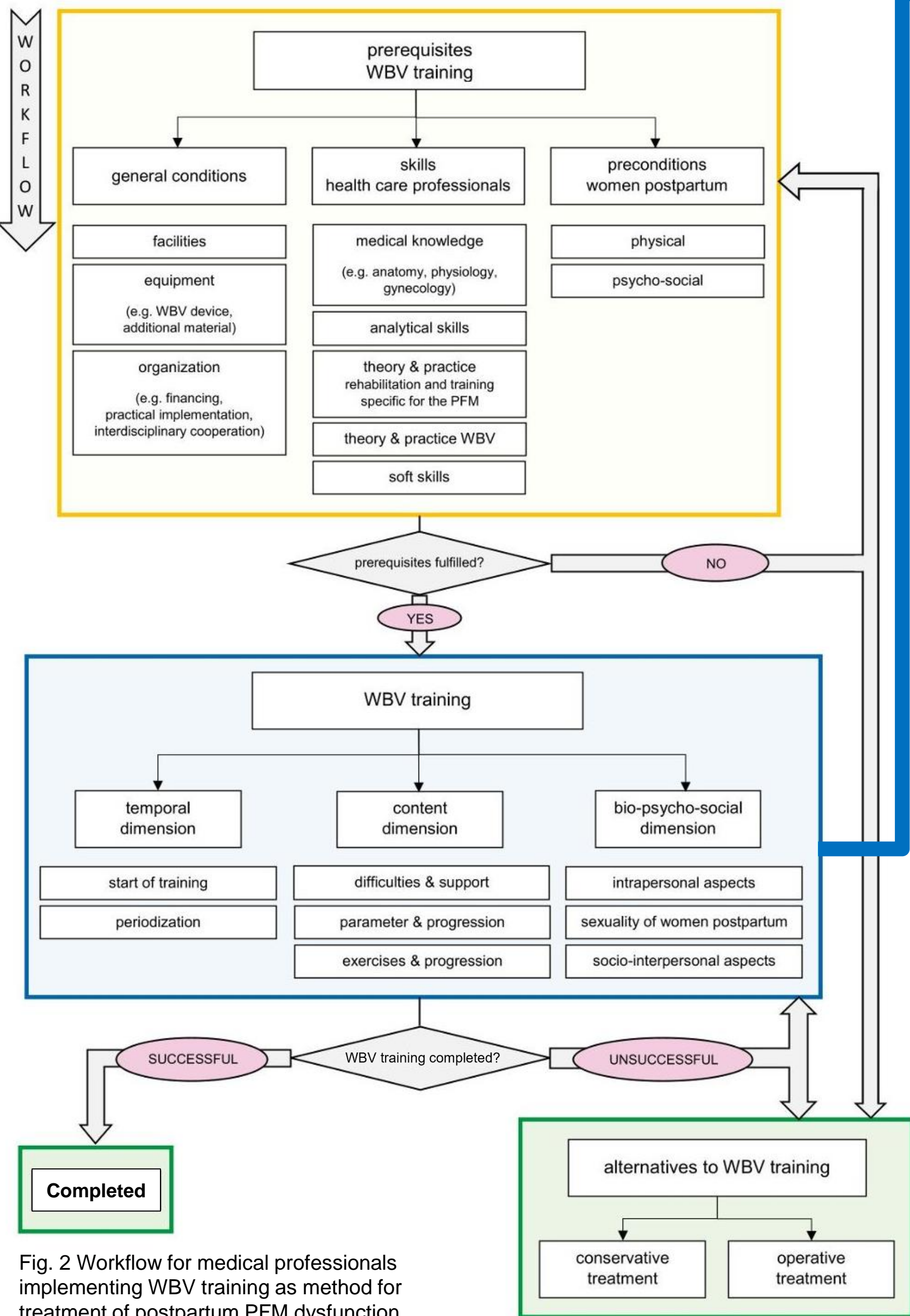


Fig. 2 Workflow for medical professionals implementing WBV training as method for treatment of postpartum PFM dysfunction

#### → content dimension

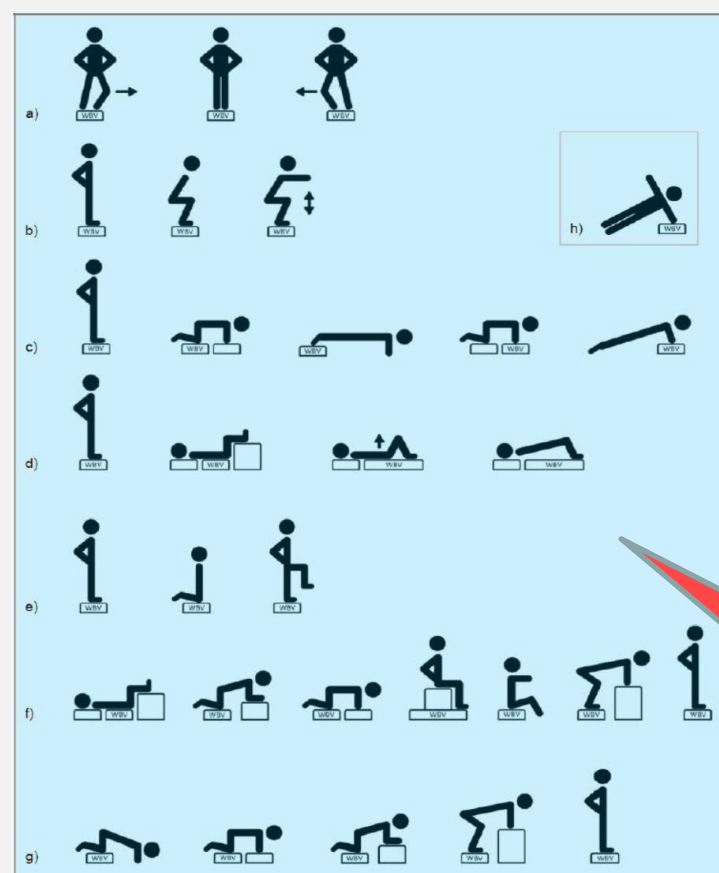


Fig. 3 Possible WBV exercises (source: expert interviews)

#### Training Parameters:

- Frequency**  
depending on the training or effect goal and individual vibration tolerance
- Amplitude**  
depending on joint and body position
- Expert recommendation (5/7 consensus)**  
1x per week á 3x 3 min

No consensus!  
for content dimension

#### → temporal dimension

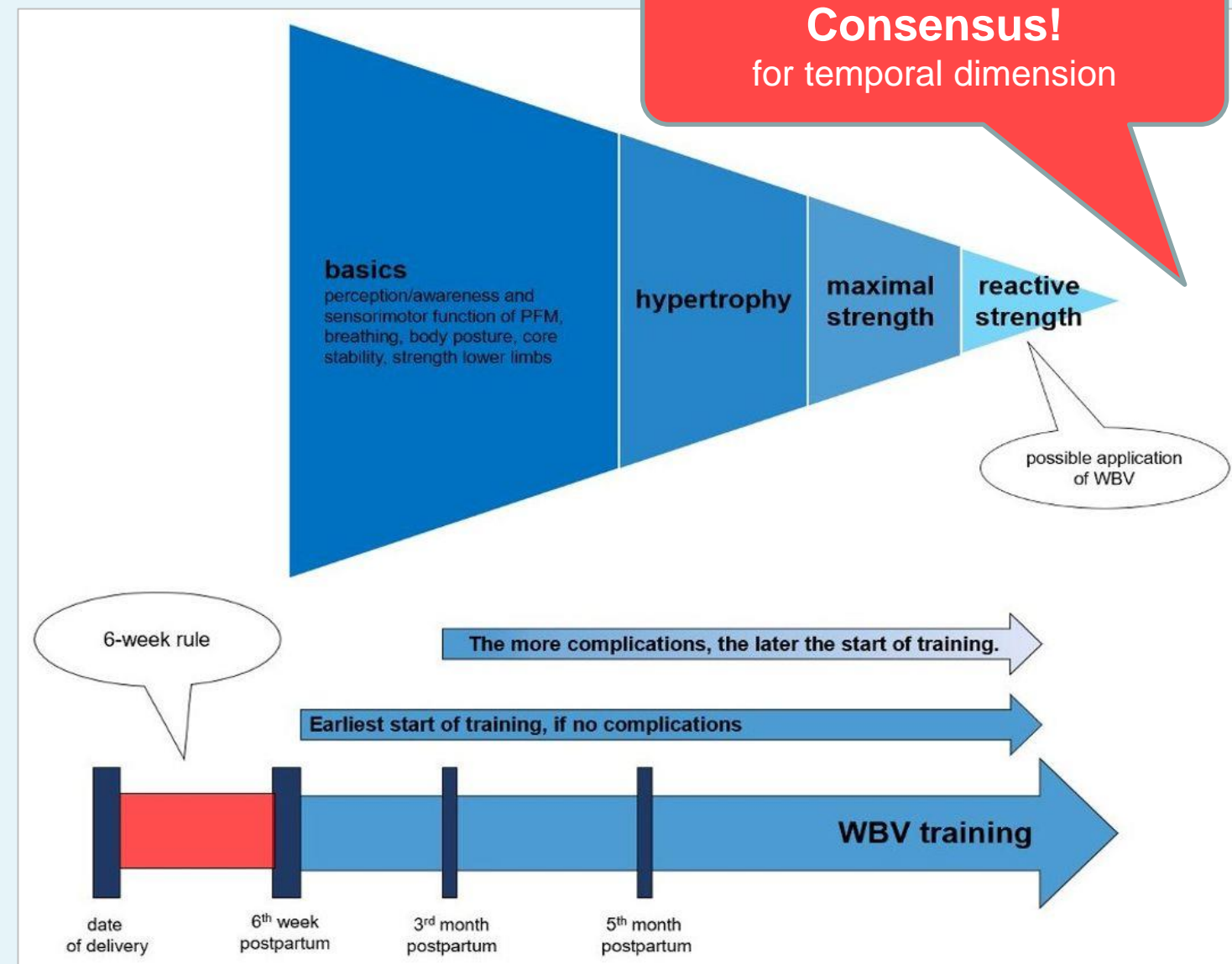


Fig. 4 The "temporal dimension" of a WBV training for treatment of postpartum PFM dysfunction

### Interpretation & Discussion

- The application of WBV for treatment of postpartum PFM dysfunction
  - ☺ 5/7 effective
  - ☹ 2/7 not effective, not specific, not functional
- No consensus for content dimension due to the discrepancy between standardization (science) vs. individuality (practice)
- Consensus for temporal dimension due to classical training theory and physiological wound healing phases as a common basis

### Conclusion

- Ambivalent experiences of the expert group on the topic under investigation
- Summary of study results (English / German) via **QR-Code** or **Link** <https://lmy.de/PXbZF>
- Verification of these qualitative results in further empirical studies recommended

