**Detailed synthesis from findings of meta-analysis and implications on interventions addressed by RCTs**

<table>
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<th>integrative synthesis, PDHA</th>
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<td>implications for interventions</td>
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<td>author, year</td>
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<td>Clemson, 2016</td>
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<td>Drummond, 2013</td>
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<td>Lannin, 2007</td>
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<td>Nikolaus &amp; Bach, 2003</td>
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<td>Threapleton, 2018</td>
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*Studies were judged for low risk of bias, if at least selection bias was excluded (proper random sequence generation and allocation concealment). Effects in favor of intervention group printed **bold**

**implications:**
1. Provide education about environmental hazards in an appropriate manner.
2. Provide tailored adaptations based on shared decision making and involve explicitly patients ideas, solutions and expectations in planning home modifications and adaptations of aids and provide the patient with advice on alternative solutions.
3. Consider needs of family members and friends in home modifications.
4. Use 3D applications to visualize and discuss modifications (if this method is appropriate for patients).
5. Provide adequate (verbal and written) patient information about aim, process, assessment, results and consequences.
6. Involve activities, meaningful for patients in PDHA to enhance patients functional self assessment.
7. Include patients level and kind of impairments, diagnoses and availability of supportive network in decision about if and what kind of pre-discharge home assessment shall be performed.

X... implication appeared in study report

| analytical themes, barriers and facilitators and implications for PDHA interventions |
|-------------------------------|-----------------|----------------------------------|-----------------|
| #    | analytical themes | barriers                                      | facilitators                                               | implications                                      |
| 1    | Safety at home    | **patient safety awareness does not always match OT’s safety awareness** | **patients accept OTs as experts for safety**  
  **For patients without visual/perceptual impairment, VR is seen as tool to educate about and help patients and OTs to identify hazards.** | 1 Provide education about environmental hazards in an appropriate manner. |
| 2 | Patients and family carers conceptions regarding home modification and aids | • "disabled look" (Aplin, 2013) of aids and modifications  
• use of patient budget needed for funding modifications out of guideline and standards  
• patients have concerns, that modifications might hinder usual performance  
• patients feel lack of control over changes | • patients are willing to pay extras, if affordable  
• patients want to perform important activities in a special way  
• patients like to maintain their social contacts  
• family, friends and patient participate together in activities of daily living | 2 Provide tailored adaptations based on shared decision making and involve explicitly patients ideas, solutions and expectations in planning home modifications and adaptions of aids and provide the patient with advice on alternative solutions.  
3 Consider needs of family members and friends in home modifications. |
| 3 | Patients and family carers ability to imagine home modifications and aids | • patients cannot imagine OT modifications | • using virtual reality applications improve the patient’s imagination of modifications and understanding of recommendations; Otss can better explain ("... look at the different options together and explain better what you mean...", Community dwelling older adult, Money, 2015)  
• 3D-visualizition enable patients to give immediate feedback and improve the shared decision making process | 4 Use 3D applications to visualize and discuss modifications (if this method is appropriate for patients). |
| 4 | Patient information about the home assessment procedure | • Inadequate patient information about aim, process, assessment, results and further steps make unsure and anxious "to fail the test" (Atwal, 2008, 2014b). | • information leaflets | 5 Provide adequate (verbal and written) patient information about aim, process, assessment, results and consequences. |
### Meaningful activities for functional self assessment

- Lack of involvement of patients/carers perceiving problems in assessment decreases chances to imply potential patient goals in therapy/discharge process
- Insufficient patient self-assessment in home environment due to short home assessments ('The clients need to spend some time at home and feel what it really is like before they can recognize what they need'. Nygard, 2004)

- Opportunity to apply skills and knowledge they gained during rehabilitation in “real-world” setting

### Patient conditions

#### Pre-discharge home assessments with patient:
- Level of impairment: minimal (physical) or very severe impairment
- Kind of impairment: cognitive, higher level

#### Pre-discharge home assessments without patient:
- Mental disorders

Virtual pre-discharge home assessment:
- Bad eyesight, visual impairments, cognitive impairments, low fine motor function, low computer literacy; unfamiliar with the occupational therapy objects

#### Pre-discharge home assessments with patient:
- Level of impairment: moderate
- Kind of impairment: physical; cognitive; visual; perceptual; new complex needs

#### Pre-discharge home assessments without patient:
- Hip- and knee-replacement
- Family members or outpatient services to support home modifications

### Involve activities, meaningful for patients in PDHA to enhance patients functional self assessment.

### Include patients level and kind of impairments, diagnoses and availability of supportive network in decision about if and what kind of pre-discharge home assessment shall be performed.

(Use Pre-discharge home visits with patient for: moderate level of impairment, physical, mild cognitive, visual, perceptual impairments and for new complex needs. Use virtual pre-discharge home assessment not for patients with visual and sensory impairments. Virtual applications must be operated by therapists or capable others (e.g. family carers). Use access visits for hip- and knee-replacement, not in mental disorders.)
important references

Methods

Qualitative analysis and synthesis


Quantitative Analysis and synthesis


Integrative synthesis


Included studies


Atwal, Anita; Money, Arthur; Harvey, Michele (2014a): Occupational therapists’ views on using a virtual reality interior design application within the pre-discharge home visit process. In: Journal of medical Internet research 16 (12), e283. DOI: 10.2196/jmir.3723.

Atwal, Anita; Spilliotopoulou, Georgia; Stradden, Jennifer; Fellows, Victoria; Anako, Emma; Robinson, Lisa; McIntyre, Anne (2014b): Factors influencing occupational therapy home visit practice A qualitative study. In: Scandinavian Journal of Occupational Therapy (21), S. 40–47.

Cameron, Jill I.; Bastawrous, Marina; Marsella, Amanda; Forde, Samantha; Smale, Leslie; Friedland, Judith et al. (2014): Stroke survivors’, caregivers’, and health care professionals’ perspectives on the weekend pass to facilitate transition home. In: Journal of rehabilitation medicine 46 (9), S. 858–863. DOI: 10.2340/16501977-1854.

Clemson, Lindy; Lannin, Natasha A.; Wales, Kylie; Salkeld, Glenn; Rubenstein, Laurence; Gitlin, Laura et al. (2016): Occupational Therapy Predischarge Home Visits in Acute Hospital Care: A Randomized Trial. In: Journal of the American Geriatrics Society 64 (10), S. 2019–2026. DOI: 10.1111/jgs.14287.


Lannin, Natasha Anne; Clemson, Lindy; McCluskey, Annie; Lin, Chung-Wei Christine; Cameron, Ian D.; Barras, Sarah (2007): Feasibility and results of a randomised pilot-study of pre-discharge occupational therapy home visits. In: BMC health services research 7, S. 42. DOI: 10.1186/1472-6963-7-42.


Nikolaus, Thorsten; Bach, Matthias (51): Preventing Falls in Community-Dwelling Frail Older People Using a Home Intervention Team (HIT): Results From the Randomized Falls-HIT Trial. In: Journal of the American Geriatrics Society 2003 (3), S. 300–305.


