

Multidisciplinary Analysis of Assisted Sit-to-Stand Techniques: A work in progress

Drs Catherine Brookman, Sheila Ritcey & Emily King

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A Working Webinar

Background & Approach

Core Assumptions

Analysis of Techniques

- **Getting to edge-sitting**
- **Standing up**

Background

- Assisting with Sit-to-Stand is a common activity for Personal Support Workers (PSWs)
- If not done properly, both client and caregiver are at risk of injury
- Client handling accounts for about 50% of caregivers' work-related lost-time injuries
- Proper training of PSWs is critical to preventing these type of injuries and improving client satisfaction and well-being



- There is no standardized training for PSWs through formal educational system or employer in-services
- CoP members reported that they lack confidence in the effectiveness of their existing training resources
- CoP members reported a need for an evidence-based tool to assist in improving the training of their PSWs in client/patient handling
- **CRE-MSD** funded a seed grant to develop

Framework for Evaluating PSW Sit-to-Stand and Stand-to-Sit Training [webinar held July 2019] and

Multidisciplinary Analysis of Assisted Sit-to-Stand Techniques

How did we arrive at our content?

- Collect PSW sit-to-stand training materials and client/patient handling trainings across the CoP membership
- Descriptive analysis of training materials



2 Workshops with Multidisciplinary panel

1. Review **Framework for Evaluating PSW Sit-to-Stand and Stand-to-Sit Training** [webinar held July 2019]
2. Perform **Multidisciplinary Analysis of Assisted Sit-to-Stand Techniques**



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This approach would work for 10 major handling tasks

1. **Sitting to standing**
2. Standing to sitting
3. Rolling or turning in bed
4. Log rolling
5. Lying to long sitting
6. Moving up the bed
7. Side lying to edge sitting
8. Edge sitting to side lying
9. Moving forward in the chair
10. Moving backward in the chair

Care Philosophy: A Restorative Approach

Focus

- Supporting clients to achieve their optimal function with the lowest level of ongoing support.
- **Support for positive risk taking**

Health Benefits

Supporting clients to the greatest possible extent in their own mobility and daily activities promotes maintenance and restoration of function, improves self-rated health, improves confidence and well-being, and decreases needs for ongoing care.

Why a Restorative Approach?

Good for the client

- Helps clients to engage independently in everyday living and social activities
- PSW assistance supports rehabilitation goals

Good for the caregiver

- Reduced risk of injury when client participates more fully in each activity (less lifting)

The alternative – doing things to/for rather than with the client

- Encourages passive role and deconditioning
- Loss of client confidence, skills and belief in personal abilities

Assumptions & Caveats

- A transfer assessment by an Occupational Therapist (OT) or Physiotherapist (PT) is still required
- The client's weight bearing status must be known
- If none of the recommended techniques are sufficient to assist the client, assistive equipment may be required for client and caregiver safety

Factors assessed for each technique

- Advantages
- Contributions to building client confidence, skills and independence
- Ways in which it reinforces dependence
- Risk to the client
- Risks to the caregiver
- Necessary client ability & space

Analysis of Techniques

Getting to edge sitting
Standing up

Optimal Start position



Getting to edge-sitting

Recommended

1. Independent shift or shimmy
2. Assisted shimmy

Controversial

- Slouch



Assisted Shimmy



Advantages:

- Client participates in activity, increasing ability to move to edge sitting independently
- Caregiver can use leverage

Disadvantage:

- Caregiver still providing substantial assistance

Risks:

- Potential for skin-shearing
- Minimal risk to caregiver

Assisted Shimmy



Advantages:

- Client participates in activity, increasing ability to move to edge sitting independently
- Caregiver can use leverage

Disadvantage:

- Caregiver still providing substantial assistance

Risks:

- Potential for skin-shearing
- Minimal risk to caregiver

Slouch



Advantages:

- Client acting independently; may increase confidence
- Low risk to caregiver (potential for some risk if caregiver assists client to sit from slouched position)

Risks:

- Risk of skin-shearing
- Risk of slouching too far and falling
- Reinforces poor movement patterns
- Getting up from slouched position may reinforce poor movement patterns

Slouch



NOT RECOMMENDED

Advantages:

- Client acting independently; may increase confidence
- Low risk to caregiver (potential for some risk if caregiver assists client to sit from slouched position)

Risks:

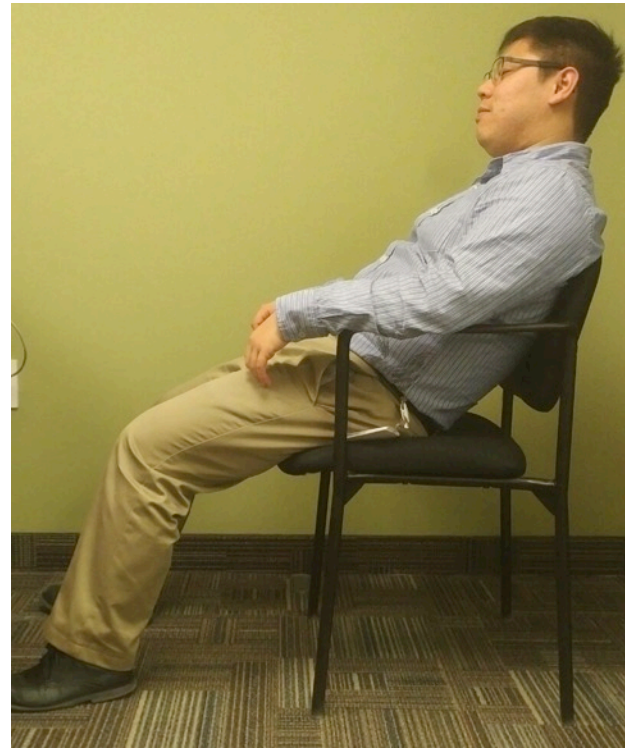
- Risk of skin-shearing
- Risk of slouching too far and falling
- Reinforces poor movement patterns
- Getting up from slouched position may reinforce poor movement patterns

NOT RECOMMENDED

Recommended

'Slouch'

Independent or Assisted Shimmy



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Standing up

- 1. Recommended techniques:**
 - Least to greatest assistance (4 variants)
 - Adaptations for difficult spaces (2 variants)
- 2. Controversial techniques & alternatives**

Supervised Sit-to-Stand Technique



Advantages:

- Reinforces optimum independent function, confidence

Risks:

- Minimal risk to client and caregiver

Supervised Sit-to-Stand Technique



Advantages:

- Reinforces optimum independent function, confidence

Risks:

- Minimal risk to client and caregiver

Minimum Assist Sit-to-Stand Technique



Advantages:

- Easy to adjust level of assistance
- Encourages client to perform majority of transfer

Disadvantages:

- Supporting client at hand/forearm removes option for client to push on thighs/armrests to participate in transfer – hand at shoulder preferred.

Risks:

- Minimal risk to client and caregiver

Minimum Assist Sit-to-Stand Technique



✓ Recommended



Advantages:

- Easy to adjust level of assistance
- Encourages client to perform majority of transfer

Disadvantages:

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Risks:

- Minimal risk to client and caregiver

Higher Level of Assistance

Sit-to-Stand Technique



Advantages:

- Moderate client participation in transfer
- Contributes to maintaining strength and physical function

Disadvantage:

- Moderate reinforcement of dependence with increasing support from caregiver

Risks:

- Minimal risk to client and caregiver

Higher Level of Assistance

Sit-to-Stand Technique



Advantages:

- Moderate client participation in transfer
- Contributes to maintaining strength and physical function

Disadvantage:

- Moderate reinforcement of dependence with increasing support from caregiver

Risks:

- Minimal risk to client and caregiver

Two Caregivers Sit-to-Stand Technique



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Advantages:

- Client is still participating in transfer (though at a lower level)
- Some maintenance of strength and physical function

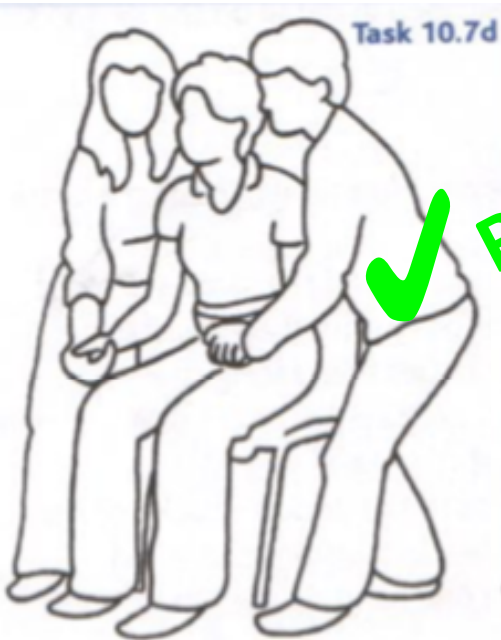
Disadvantage:

- Moderate reinforcement of dependence with increasing support from caregiver

Risks:

- Minimal risk to client and caregiver

Two Caregivers Sit-to-Stand Technique



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Recommended

Advantages:

- Client is still participating in transfer (though at a lower level)
- Some maintenance of strength and physical function

Disadvantage:

- Moderate reinforcement of dependence with increasing support from caregiver

Risks:

- Minimal risk to client and caregiver

Limited access to side of chair

Option 1: Angled seating



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Advantages:

- Client is participating in the transfer; minimal reinforcement of dependence
- Moderate participation in transfer contributes to maintaining strength and physical function

Risks:

- Mild risk of client skin shearing
- Minimal risk to caregiver

Limited access to side of chair

Option 1: Angled seating



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Recommended

Advantages:

- Client is participating in the transfer; minimal reinforcement of dependence
- Moderate participation in transfer contributes to maintaining strength and physical function

Risks:

- Mild risk of client skin shearing
- Minimal risk to caregiver

Limited access to side of chair

Option 2: Front Access technique

Advantages:

- Client is participating in transfer, contributing to maintenance of strength and physical function
- Secure link between client and caregiver; option for caregiver to disengage if needed.

Disadvantage:

- Moderate reinforcement of dependence
- Interferes with natural sit-to-stand movement – hard for client to lean forward or engage arms by pushing on thighs
- Limits to adjust degree of assistance

Risks:

- Psychosocial risk – very close contact between client and caregiver



Limited access to side of chair

Option 2: Front Access technique



✓ Recommended



Advantages:

- Client is participating in transfer, contributing to maintenance of strength and physical function
- Secure link between client and caregiver; option for caregiver to disengage if needed.

Disadvantage:

- Moderate reinforcement of dependence
- Interferes with natural sit-to-stand movement – hard for client to lean forward or engage arms by pushing on thighs
- Limits to adjust degree of assistance

Risks:

- Psychosocial risk – very close contact between client and caregiver

Controversial Techniques

'Zombie'

Advantages:

- May give false perception of relative independence

Disadvantages:

- Client cannot use normal movement patterns, use arms to assist, or increase function
- Encourages caregiver to do much of the work

Risks:

- Client - high risk of shoulder strain/dislocation; elbow/wrist/back strain
- Client fall risk
- Caregiver - high risk of shoulder dislocation/strain, back strain.
- Without client agreement, can be considered abuse



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'Zombie'

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task 10.7m

NOT RECOMMENDED

Recommended

'Zombie'



Task 10.7m

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Minimal Assist



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'Chicken Wing'



Disadvantages:

- Strongly reinforces dependence
- Client cannot use normal movement patterns, use arms to assist, or increase function
- Psychological dependence/lack of control
- Encourages caregiver to do much of the work

Risks:

- Client - high risk of shoulder strain/dislocation; damage to brachial plexus
- Caregiver - high risk of shoulder strain/dislocation
- If client is falling, little opportunity to disengage

'Chicken Wing'



Disadvantages:

- Strongly reinforces dependence
- Client cannot use normal movement patterns, use arms to assist, or increase function
- Psychological dependence/lack of control
- Encourages caregiver to do much of the work

Risks:

- Client - high risk of shoulder strain/dislocation; damage to brachial plexus
- Caregiver - high risk of shoulder strain/dislocation
- If client is falling, little opportunity to disengage

Task 10.7j

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NOT RECOMMENDED

Recommended

'Chicken Wing'

**Higher Level of Assistance OR
Front Access if necessary**



'Bear Hug'



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Advantages:

- Requires minimal space to perform

Disadvantages:

- Strongly reinforces dependence
- Client cannot use normal movement patterns, use arms to assist, or increase function
- Psychological dependence/lack of control
- Encourages caregiver to do much of the work

Risks:

- Psychosocial risk – very close contact between client and caregiver
- Caregiver - high risk of back injury
- If client is falling, little opportunity to disengage

'Bear Hug'

Advantages:

- Requires minimal space to perform

Disadvantages:

- Strongly reinforces dependence
- Client cannot use normal movement patterns, use arms to assist, or increase function
- Psychological dependence/lack of control
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Risks:

- Psychosocial risk – very close contact between client and caregiver
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NOT RECOMMENDED

Recommended

**Higher Level of Assistance OR
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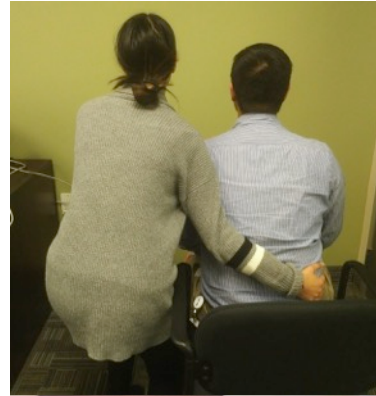
'Bear Hug'



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Assist with walker



Disadvantages:

- Dependent on access to walker

Risks:

- High falls risk for client

Assist with walker

NOT RECOMMENDED



Disadvantages:

- Dependent on access to walker

Risks:

- High falls risk for client

sk 10.7k

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NOT RECOMMENDED

 **Recommended**

Assist with Walker

Minimal Assist

Client push on thighs/armrests



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Summary: Sit-to-Stand Techniques

✓ Recommended

Getting to edge sitting

- Independent Shift/Shimmy
- Assisted Shimmy

Standing up

- Supervised
- Minimal Assist
- Higher Level Assist
- Two Caregivers Assist
- Angled Seating
- Front Access Technique

NOT RECOMMENDED

Getting to edge sitting

- Skipping this step
- Slouch

Standing Up

- Zombie
- Chicken Wing
- Bear Hug
- Assist with Walker

Contributors

- Sherri Bastos – PSHSA, Health & Safety expert
- Tyson Beach – U of T, Kinesiology Professor
- Taryn Bolt – Mississauga Halton LHIN, Occupational Therapist
- Catherine Brookman – U of Waterloo, Associate Director KTE, Gerontologist
- CRE-MSD – PSHSA Client/Patient Handling Community of Practice Members/Participants
- Bernadine Bulze Licorish– TransCare, Personal Support Worker
- Andrea Cook – VHA Home Healthcare, Occupational Therapist
- Tilak Dutta – Toronto Rehabilitation Institute, Scientist
- Brydne Edwards – VHA Home Healthcare, Occupational Therapist
- David Frost – U of T, Kinesiology Professor
- Kelly Hebner, U of Waterloo, Kinesiology Student
- Emily King - U of Waterloo/VHA Home Healthcare, PSW Health and Safety Researcher
- Matthew Lam – West Park Healthcare Centre, Occupational Therapist
- Sandra McKay - VHA Home Healthcare, Home Care Researcher
- Janet Rhooms – TransCare, Personal Support Worker
- Sheila Ritcey – SR Consulting, Disability Management Physical and Occupational Therapy Services
- Betty Rivington-Law – Closing the Gap, Physiotherapist
- Sharon Switzer-McIntrye – U of T, Vice Chair Education and Director Ontario Internationally Educated Physical Therapy Program