

## **Assessment of Readiness for Mobility Transition (ARMT): Application to the Trans-theoretical Model (TTM)**

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An important instrumental activity of daily living (IADL) is personal mobility – the ability to transport oneself at will from point A to B. This includes personal mobility within and around the home and neighborhood environments, as well as use of various modes of transportation for travel to necessary and valued destinations further away. Loss of the ability to drive is a significant mobility concern for many older adults. Other concerns may include: access to alternative transportation, loss of ability to walk distances, difficulty climbing stairs, etc.

Real or threatened losses of mobility have implications for independence, well-being and quality of life. While a growing body of literature and community resources focus on the instrumental aspects of mobility (e.g., alternative transportation), few tools exist to understand the personal meanings and emotions associated with mobility. A person-centered approach to mobility transition counseling, planning and management must necessarily start with such meanings and emotions which are important precursors to active coping and adaptation.

The Assessment of Readiness for Mobility Transition (ARMT; Meuser, Berg-Weger, et al, in press) is a measure emotional and attitudinal readiness associated with the prospect of present &/or future mobility loss/change that accompany advancing age. The ARMT is designed for use as a “clinical” questionnaire in a social service, health care or supportive care encounter on mobility change and planning. Administration of the ARMT raises awareness concerning key issues in mobility-related appraisal and coping, and therefore serves as a starting point for active discussion and planning (i.e., mobility transition counseling).

Those who interpret mobility loss as a significant personal worry have a choice to make with respect to future planning. While feeling threatened (worried, fearful) can serve as a motivator for action, it could just as well hinder adaptive coping. Some older adults wait until a crisis situation (e.g., recent crash, new serious diagnosis) to consider mobility alternatives, especially if retirement from driving is a possibility. The task of the “mobility counselor” is to understand individual attitudes and appraisals so as to structure a dialogue and intervention to encourage an adaptive response *before* a crisis.

The ARMT was conceptualized and developed based on a grounded theory approach and with application to Prochaska’s Transtheoretical Model (TTM; Prochaska et al, 1985) for behavioral change (“Stages of Change”). The ARMT is applicable across TTM stages as described in this manual. Consideration of ARMT scores allows the mobility counselor to develop a personalized intervention strategy that reflects the stage of change, as well as the person-environment interaction (see King, Meuser, Berg-Weger, et al, 2011).

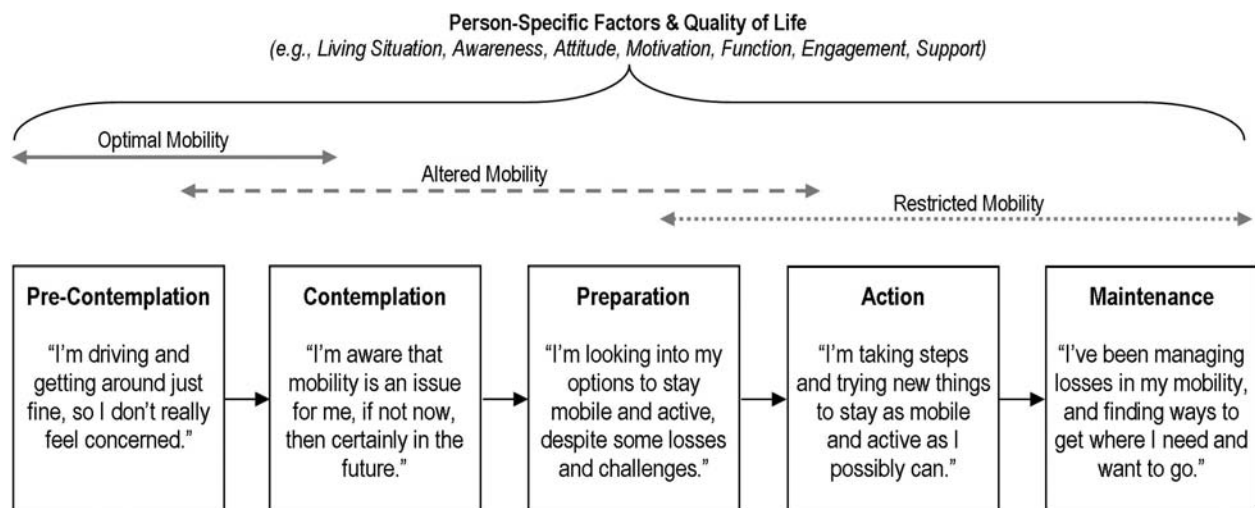
The ARMT is a new scale and so not yet “proven” as a clinical tool, although initial validation data appear solid. This manual is a first effort to guide the professional in use of the ARMT to support adaptive coping and planning concerning mobility loss.

## TTM & Mobility Transition Counseling

The Transtheoretical Model (TTM; Prochaska et al, 1985) posits a series of stages to understand and explain how individuals adapt to significant life events and challenges. Adaptation is a process that unfolds over time in response to intra and extra-individual factors. Such adaptation can be encouraged and facilitated through professional intervention. The TTM process with respect to mobility loss in aging is depicted in the figure below. The five primary stages are listed, along with quotations reflecting common thoughts and attitudes.

For most in the *Pre-Contemplation* stage, driving a motorized vehicle is a primary means of personal mobility. Our experience and research indicate that most older adults equate driving with mobility (and visa versa). This is true even for those experiencing physical, sensory &/or functional changes that make walking, climbing stairs, etc., more difficult. As long as driving remains a viable option, then personal mobility and independence are considered intact (i.e., "I am mobile as long as I can still drive").

In most cases, mobility loss occurs gradually over time. Most older adults find ways to manage and compensate for minor, early challenges to mobility. Individuals may limit driving to daytime hours, travel less miles, prioritize destinations (i.e., focusing more on needs than wants), accept rides from others when reasonable, etc. As this process unfolds, optimal mobility transitions to altered mobility. The individual still gets to important destinations, but more thought, planning, and, dependence are required.



Relative unawareness of mobility concerns (as in the Pre-Contemplation stage), gives way to recognition, thought and feeling concerning what may come next (*Contemplation* stage). At this stage, alterations in mobility can no longer be ignored. The individual can accept that something substantial is happening and find ways to adapt, or he or she can struggle to maintain a semblance of optimal mobility despite mounting challenges. How the individual appraises mobility loss will determine, in part, the quality of thought and planning in these early stages.

By the time the third stage, Preparation, is reached, the individual understands what is going on and is ready to explore possible solutions and/or accommodations. If mobility loss is viewed as threatening, such appraisal may motivate a desire to improve one's situation. Resources are investigated and plans are made. Under ideal circumstances, retirement from driving (i.e., if necessary for reasons of personal and public safety) occurs at this stage.

Plans for continued mobility are implemented in the *Action* stage of the model. Action does not necessarily mean success, however, and initial failures to maintain adequate mobility may result in repetition of previous stages as new challenges are recognized, accepted, and planned for. Plans that “work” are then maintained in the final stage.

Changes in sensory, cognitive and/or physical functioning that come with advancing age often necessitate further adaptation over time. The TTM model applies to these challenges and adaptations as well. Each significant change requires a process of adaptation and a new or revised plan.

The mobility counselor “meets” the individual at the applicable stage, develops a shared understanding of what is occurring, and finds ways to intervene to promote effective adaptation. The ARMT is a tool designed to support this process by raising key concerns about mobility (i.e., those expressed by other adults of various ages and levels of functional ability) and by putting them on the table for active discussion and planning.

## Understanding the ARMT

The 2-page form of the ARMT (Appendix A) explains the administration, scoring, and basic interpretation of the scale. As noted, the ARMT is a new scale and its clinical utility must still be proven. That said, data from the validation sample of community-dwelling adults (ages 55-95; n = 297) provide a reasonable basis to understand the ARMT in context of mobility-related attitudes and other relevant issues.

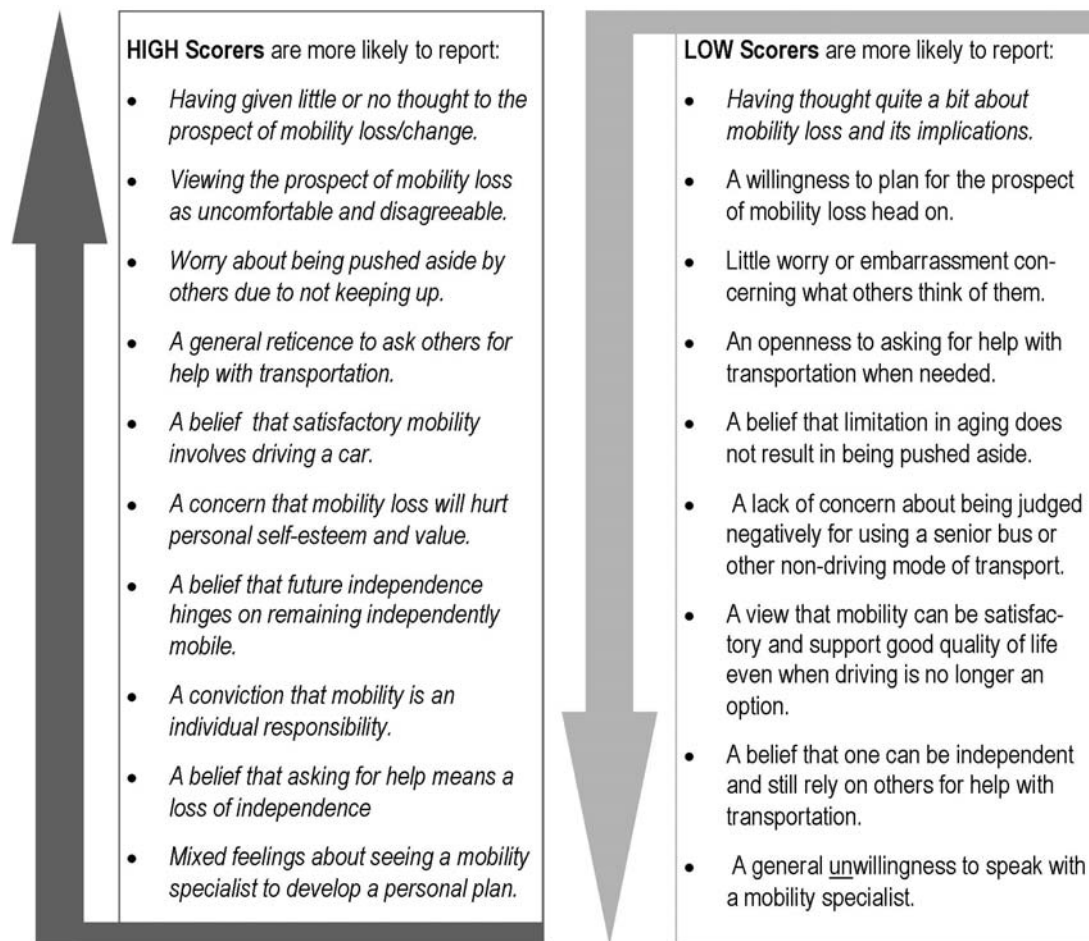
The following descriptions represent our current understanding of the ARMT. This understanding will change as the scale is used in various clinical and supportive care settings. The core intent of the scale will not change. The ARMT is designed to provide helpful, person-centered information in support of mobility transition counseling, planning and management. *Scores on the ARMT do not suggest a specific course of action or choice of mobility option, but rather indicate to the user what directions and strategies may be more or less appropriate.*

As shown on the cover of this manual, knowing the “person” is the first step in any person-centered mobility intervention. Strong feelings – in this case fear/threat – are especially important to recognize early in any person-centered intervention, as such reactions can have a strong influence on subsequent coping or lack thereof. What persons believe and accept will change over time, also, and so the ARMT can serve as both as *starting point* for mobility-related planning and a *gauge of appraisal and attitude* at each stage of the TTM model (see next section).

The ARMT scores are represented as a mean score ranging from 1 to 5 points. A total score (ARMT-TS) quantifies overall threat appraisal associated with the prospect of present &/or future mobility loss/change that may come with advancing age. High and low scores are defined as falling one standard deviation above or below the validation sample mean.

### ***HIGH TOTAL SCORE***

Those achieving a HIGH ARMT Total Score (24-item mean > 3.57) feel quite threatened, fearful and worried about the prospect of mobility loss. They view mobility loss as a threat to their independence and worry about becoming a burden on others. Higher scores also appear to reflect a lack of preparedness &/or a resistance to considering other non-driving modes of transportation. Some resist thinking about the topic at all, preferring a “wait and see” approach. Perceptions of mobility loss as personally isolating, stigmatizing, and even devastating can motivate avoidance-based coping in this group.



### ***LOW TOTAL SCORE***

Those achieving a **LOW** ARMT Total Score (24-item mean < 2.3) express little felt concern or worry about the issue of mobility loss. For such individuals, mobility loss does not threaten their sense of self or independence. They appear ready and willing to discuss the issue directly and openly. A low score does not mean, however, that the individual will be successful in developing and implementing a mobility plan. It could also indicate over-confidence. This is something for the mobility counselor to determine with the client or patient.

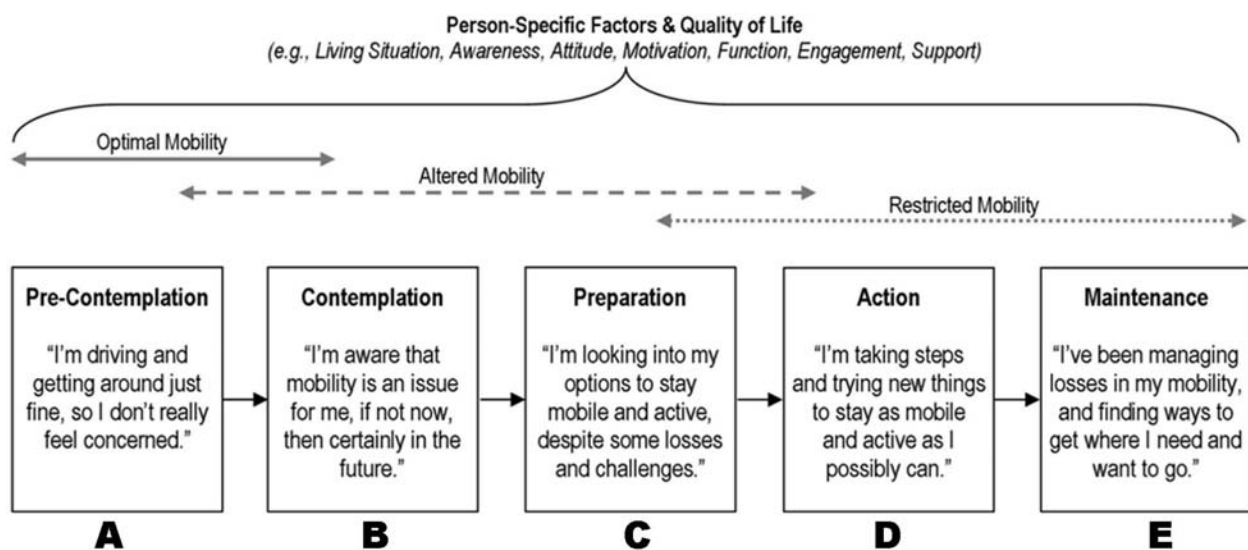
High and low scores (i.e., those falling 1 SD above or below the validation sample mean) suggest that the client is somewhat unusual in his or her approach to the issue of mobility loss. High scores are more likely to warrant a personalized intervention, as higher scorers appear more worried and less prepared to cope, especially in the midst of a crisis. Low scorers may respond as if well-prepared, but individual circumstances or needs may still warrant an intervention.

**ARMT-TS & Motivation** – A high or low score does not necessarily mean that personal motivation to address a mobility concern will go in the same direction. Low scorers may not be particularly worried or threatened by mobility change, but still may be open to plan for challenges that exist now or in the future. High scorers may feel so threatened, in fact, that they have difficulty thinking about the issue and so experience little motivation to address it. The mobility counselor uses the ARMT as a starting point to

understand individual concerns and develop a strategy to encourage a motivated, adaptive response over time.

**The mobility counselor should interpret high scores on the three subscales in light of all information available about the client or patient.** For example, a high avoidance score might be especially meaningful in light of other evidence of avoidance-related coping. A thoughtful, accepting approach that honors the desire to avoid would be appropriate in such a case. In contrast, a high burden score might have little practical meaning for someone who reports satisfactory reliance on others to address other important needs. The mobility counselor might approach the issue of burden by pointing out differences in attitude across personal needs, thus helping the individual to view mobility loss in a larger personal context.

## Application of the ARMT to the TTM



The ARMT is applicable across TTM stages, but its use and interpretation may differ. The awareness-raising benefits for the ARMT may be more salient for those in the A-B stages depicted above. Another benefit of the ARMT is comparison of *self to self* (when administered at different time points) and of *self to a normative group* of community-dwelling elders (i.e., validation sample). This normative comparison may be more meaningful for those in the later stages (C-E), both to gauge changing attitudes as well as similarity/kinship with peers.

- A:** Persons in the **Pre-Contemplation** stage may have little or no felt awareness of mobility loss as an issue for personal concern. It is unlikely that someone at this stage would present for a 1:1 mobility-related intervention, but might take part in a group activity or class where mobility is discussed. In this case, administration of the ARMT may help raise awareness and plant a seed for later consideration of the topic.
- B:** Persons in the **Contemplation** stage are aware of mobility concerns and their real (potential) impact on personal function. Some at this stage are likely to seek out mobility-related resources and support. Administration of the ARMT can help broaden awareness and foster needed discussion. *The ARMT may be most applicable, and powerful in its potential impact, at this stage.*

- C:** Persons in the **Preparation** stage are taking active steps to investigate their options and prioritize their mobility needs and wants. At this stage, the ARMT may help the individual see how his or her attitudes have changed over time. The process of preparation may enhance personal control and thus reduce the threatening aspects of mobility loss. Witnessing a change in ARMT-TS from high to average could be quite affirming for someone in this stage, as well as supportive of future action.
- D:** Persons in the **Action** stage are striving to manage mobility losses and stay as engaged in life as possible. They are experimenting with different mobility options and developing modifications as needed. In addition to serving as a point of comparison (i.e., with self and others), the ARMT may be most helpful here as a tool for values clarification. *What do I really want with respect to mobility? What aspects are essential for my personal well-being? What is my preferred balance of dependence vs. independence in the context of mobility today?* The mobility counselor may administer the ARMT and follow up with questions, such as these, to bring focus and prioritization to action.
- E:** Persons in the **Maintenance** stage have a working plan and are managing to remain mobile despite continuing challenges. The ARMT may help to validate current coping at this stage. For example, someone who felt threatened in the past and wished to avoid the issue now might see their scores drop as a result of successful adaptations.

## **Life Space & Threat Appraisal in Person-Centered Mobility transition counseling**

Older adults are largely mobile within a desired “life space;” that is, the immediate environments of home, neighborhood, town or city that sustain a purposeful and meaningful daily life (Stalvey, Owsley, Sloane, & Ball, 1999). We conceptualize life space as a reflection of values, attitudes and practical needs of people, *separate from* the specific functional aspects of mobility (e.g., choice of driving, walking, taking the bus).

Threats to mobility in this life space can result from disability, medical-functional changes due to advancing age, and a host of other factors. Adults are likely to react to such threats – real or anticipated – in different ways, and these reactions will affect their readiness for change in mobility, acceptance of and adjustment to these changes, and openness to supportive intervention. *The ARMT was developed to understand such differences in threat appraisal and place them into context in support of individual adaptation.*

While a wealth of literature exists concerning the behavioral and instrumental aspects of driving and mobility in aging, relatively few studies have examined the personal meanings and emotions of older adults concerning mobility from the perspective of the person. Similarly, while various quantifications of mobility (e.g., daily trips, miles traveled, driving versus transportation options) are discussed in the literature, the ways in which older adults and persons with disabilities perceive mobility relative to desired activities and anticipated mobility restrictions remain open questions. This is fertile ground for clinical research; we hope that the ARMT can serve as a resource and tool for such investigation.

Much of the available research on mobility and aging is built on the assumption that adults must be “optimally mobile” to live meaningful, productive lives. Mobility has been conceptualized largely in terms of instrumental behaviors, modes of transportation, destinations, and various outcomes, both positive and negative. Changes in health and/or functional status due to advancing age or disability are thought to

adversely impact mobility. Hence, assessments, interventions, and systems are needed to support older adults and persons with progressive disabilities in recognizing changing mobility status and needs, pursuing self-regulatory and other compensatory strategies, and utilizing available transportation resources. Research based on these assumptions has defined many of the critical individual and environmental factors involved in remaining mobile and engaged across the life span.

While this well-established body of knowledge addresses critical issues related to older adult mobility, an important aspect of mobility preparation has not been explored. This unexplored aspect is related to the fact that mobility is more than just driving a car from point A to B, walking to the bus stop, or calling for a taxi, as these instrumental mobility behaviors are merely means to an end. *The “end” is virtually unexplored, and refers to the individual’s beliefs about and accommodation/ adjustment to his or her mobility as related to living a healthy, happy and productive life. A “happy” life can occur within the relatively tight confines of a home and immediate neighborhood, or extend much farther. It all comes down to how personal circumstances are understood and appraised.*

**Distances and modes of transit are less important, we believe, than the degree to which desired activities can be maintained despite changes in mobility status. If you are happy and fulfilled in a relatively small life space, then whether or not you can ambulate long distances or drive an automobile become less relevant. The factors that differentiate people in this regard are important, however, and must be understood on the level of the individual (i.e., through person-centered assessment and intervention).**

Mobility transition counseling is a new and growing area for health and social service practice in our aging society. Persons living into their eighth and ninth decades of life will likely need to retire from driving and find alternative means of remaining mobile. A person-centered approach to mobility transition counseling takes into account personal life space needs, meanings and emotions as a first step. The specific mechanics of mobility management come later and flow from the initial assessment of personal attitudes, appraisals, and mobility wants and needs.

Specific instructions concerning mobility transition counseling, planning and management are beyond the scope of this manual. We believe that the TTM provides a solid theoretical foundation for such interventions, and we encourage mobility counselors to consider this model and its implications for successful practice. The evaluation of threat appraisal and personal attitudes concerning mobility are important early (first) steps in any person-centered mobility intervention. The ARMT is a new tool designed to support such efforts.

## References

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- Prochaska, J.O., DiClemente, C.C., Velicer, W.F., Ginpil, S. & Norcross, J.C. (1985). Predicting change in smoking status for self-changers. *Addictive Behaviors*, 10, 395-406.
- Stalvey, B.T., Owsley, C., Sloane, M.E., & Ball, K. (1999). The Life Space Questionnaire: A measure of the extent of mobility of older adults. *Journal of Applied Gerontology*, 18(4), 460-478.

Feel free to contact the lead investigators with questions, comments or suggestions concerning the ARMT and its role in mobility transition counseling, planning and management interventions. Thank you!

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## Other Resources for Mobility transition counseling & Management<sup>1</sup>

### Websites

National Center on Senior Transportation (<http://seniortransportation.easterseals.com>)

AAAFTS SeniorDrivers.Org (<http://www.seniordrivers.org>)

AAA Senior Drivers (<http://www.aaaseniors.com>)

AMA Older Driver Project & Physician Resources (<http://www.ama-assn.org/ama/pub/physician-resources/public-health/promoting-healthy-lifestyles/geriatric-health/older-driver-safety.shtml>)

Easter Seals Project Action (<http://projectaction.easterseals.com>)

Beverly Foundation Senior Transportation Library  
([http://www.beverlyfoundation.org/senior\\_transportation\\_resource\\_store/index.html](http://www.beverlyfoundation.org/senior_transportation_resource_store/index.html))

Area Agency on Aging 1-B Driving & Transportation Counseling  
(<http://www.aaa1b.com/index.php?c=10&p=97>)

Michigan Center for Advancing Safe Transportation throughout the Lifespan  
(<http://www.m-castl.org/>)

AOTA Driver Safety (<http://www.aota.org/older-driver>)

### Articles, Brochures & Tools

Family Conversations with Older Drivers (<http://www.thehartford.com/talkwitholderdrivers/>)

Alzheimer's, Dementia & Driving (<http://www.thehartford.com/alzheimers/index.html>)

AAA Roadwise Review (<http://www.seniordrivers.org/driving/driving.cfm?button=roadwiseonline>)

Stalvey, B.T., Owsley, C., Sloane, M.E., & Ball, K. (1999). **The Life Space Questionnaire:** A measure of the extent of mobility of older adults. *Journal of Applied Gerontology*, 18(4), 460-478.

National Council on Aging Fall Prevention Tools (<http://www.healthyagingprograms.org/content.asp?sectionid=69>)

AGS Foundation for Health in Aging (Falls & Balance)  
([http://www.healthinaging.org/public\\_education/pef/falls\\_and\\_balance\\_problems.php](http://www.healthinaging.org/public_education/pef/falls_and_balance_problems.php))

Medline Plus Exercise for Seniors (<http://www.nlm.nih.gov/medlineplus/exerciseforseniors.html>)

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<sup>1</sup> There are many helpful websites, brochures, and tools available on-line and through libraries. While this is just a small list, these resources are among the best and make a great starting point. Feel free to suggest a resource for a future edition of this manual (send email to [meusert@umsl.edu](mailto:meusert@umsl.edu)).

## **Appendix A – ARMT Form**

Assessment of Readiness for Mobility Transition (ARMT): A Tool for Mobility Transition Counseling (MTC)

T.M. Meuser, UM - St. Louis

\*\*\* A measure of emotional & attitudinal readiness to cope with mobility change & loss associated with advancing age. \*\*\*

| Item                                                                                                            | Instructions: Consider what would happen if you could not get yourself to valued destinations and activities independently. Maybe this is occurring already in your life, maybe it could happen in the future. Read each statement and consider if you agree or disagree and how strongly. Mark your answer by circling the appropriate number to the right. Respond to all items if possible. Transfer your numeric answers to the total and subscale columns on the right. Additional scoring on page 2. | Strongly DISAGREE ..... AGREE |   |   |   |   | Total Score | Subscale Scores<br>(for professional use only) |     |     |     |
|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---|---|---|---|-------------|------------------------------------------------|-----|-----|-----|
|                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1                             | 2 | 3 | 4 | 5 |             | 1AA                                            | 2PB | 3AV | 4AS |
| 1                                                                                                               | Mobility loss can be sudden or progressive, but it is always devastating.                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 2                                                                                                               | Asking others for help with mobility means that I am losing my independence.                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 3                                                                                                               | I am a burden if I ask others for help with transportation.                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 4                                                                                                               | I avoid thinking about losing my mobility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 5                                                                                                               | I wish others would stop talking to me about my mobility.                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 6                                                                                                               | Asking for a ride creates an inconvenience for others.                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 7                                                                                                               | Other people simply don't understand what it's like to have limited mobility.                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 8                                                                                                               | It is devastating for older people to have someone take away their car keys.                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 9                                                                                                               | I do not like to ask others for a ride.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 10                                                                                                              | I feel depressed at the thought of being limited in my mobility.                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 11                                                                                                              | Moving to a retirement community is too restrictive for my desired mobility.                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 12                                                                                                              | When I see older people with significant limitations in mobility, I fear that I will end up like that too.                                                                                                                                                                                                                                                                                                                                                                                                 | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 13                                                                                                              | There is no way to plan for loss of mobility in aging.                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 14                                                                                                              | A big loss of mobility would really hurt my self-esteem.                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 15                                                                                                              | Loss of mobility is very isolating and depressing.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 16                                                                                                              | I shudder to think of a time when I am less mobile than I am now.                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 17                                                                                                              | I refuse to accept that I might lose my mobility in the future.                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 18                                                                                                              | My future independence hinges on my ability to get myself around.                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 19                                                                                                              | I have not thought much about my future mobility before today.                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 20                                                                                                              | I've seen others become frail and immobile in older age, and I am determined to avoid this fate at whatever cost.                                                                                                                                                                                                                                                                                                                                                                                          | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 21                                                                                                              | It really frustrates me when I have difficulty getting around.                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 22                                                                                                              | I feel angry when I think about losing my mobility.                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 23                                                                                                              | I feel self-conscious when my mobility needs become a concern for others.                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| 24                                                                                                              | It is not easy for me to ask for help with transportation when I need it.                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1                             | 2 | 3 | 4 | 5 |             |                                                |     |     |     |
| Sum (add up) circled numbers for Total Score (Items 1-24) & Subscale Scores, and record in boxes to the right → |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                               |   |   |   |   |             |                                                |     |     |     |



**Assessment of Readiness for Mobility Transition (ARMT): A Tool for Mobility Transition Counseling (MTC)**

T.M. Meuser, UM – St. Louis

The Assessment of Readiness for Mobility Transition (ARMT) was developed by a team of educators and researchers with funding support from the National Center on Senior Transportation (Meuser, T.M., Principal Investigator, University of Missouri – St. Louis, meuser@ums.edu, 314-516-5421; Co-Investigators: M. Berg-Weger & J. Chibhall, Saint Louis Univ., A. Harmon, Univ. of Michigan).

This research-based, individual differences questionnaire measures *emotional and attitudinal* readiness to cope with present &/or future mobility loss/change that may come with advancing age &/or disability. Loss of the ability to drive is a significant concern for many older adults. Other concerns include: difficulty walking, problems climbing stairs, impact of falls, how to continue driving safely in the face of functional change, and how to transition from driving to non-driving mobility.

**The ARMT has two purposes:** (1) to raise individual awareness on the topic of mobility loss and to encourage proactive discussion and planning; and (2) as a "clinical" questionnaire to assess relevant personal perspectives in the context of *Mobility Transition Counseling (MTC)*. The Total Score applies to both purposes in that it provides an overall gauge of felt concern about this issue. The Subscale Scores are more specific and best discussed and interpreted with professional guidance.

*At first glance, some of the 24 items may appear to be worded rather strongly. Many of these are direct or paraphrased quotations from older adults who participated in a series of focus groups. ARMT items are intended to encourage the expression of diverse viewpoints so that individual meanings, emotions and attitudes may be identified and addressed.*

**Interpretation:** A high Total Score is characterized by significant felt anxiety, worry about a loss of personal independence, and concern about becoming a burden on others. High scores may result depending on others for transportation and may also delay making mobility-related plans until a crisis ensues. In these ways, high Total and Subscale Scores suggest that the respondent may not be fully ready (i.e., from an emotional and attitudinal perspective) to cope effectively with mobility loss/change. High scorers may benefit from a supportive intervention. Such intervention may be as simple as a one-time education session or a more involved in the MTC process.

The Total and Subscale scores are calculated and interpreted as mean (average) scores. High scores are defined as falling 1+ standard deviation (SD) units above the mean for that item. High scores suggest strongly held beliefs that could interfere with adaptive coping. For example, someone scoring high on Factor 2 (Perceived Burden) may resist reaching out to others for help even when appropriate to do so. Someone scoring high on Factor 4 (Adverse Situation) may view mobility loss more negatively than is helpful, and so might benefit from focused education to bring balance.

**Users are cautioned not to "over interpret" ARMT scores and always consider responses in light of other available information. Some strongly held beliefs can be adaptive. Scores are not intended to suggest pathology or that a person's views are wrong, but rather a starting point for self-evaluation, proactive discussion and future planning.**

The ARMT was developed based on a grounded theory approach and with application to Prochaska's Trans-theoretical Model. Measurement items were derived from focus groups (King, Meuser, Berg-Weger, et al., 2010, Journal of Gerontological Social Work). The ARMT was established and validated on a volunteer sample of 297 community-dwelling adults (Mean Age 71, Range 55-95; 78% Female; 78% Caucasian) using factor analysis and related statistical techniques. The authors consider the ARMT as part of the public domain for educational, clinical care, and other individual supportive purposes. Research users and those who wish to reprint or incorporate the ARMT into a booklet or curriculum are required to obtain prior permission. Contact: Dr. Thomas M. Meuser by e-mail for more information and to learn how to cite the ARMT (meuser@ums.edu).

**SCORING & INTERPRETATION**

An ARMT total score (ARMT-TS) and up to four subscale scores may be derived. Scores are expressed as a mean (average) of the associated number of items. A calculator is necessary for accurate scoring.

The ARMT-TS is appropriate to score and discuss in any mobility education or counseling encounter. The subscales are more specific and best discussed and interpreted with professional guidance.

The respondent circles a number (1–5) for each statement. For ease of scoring, these numbers should be recorded in both the total score and individual subscale columns as indicated. Sum these down and write the total for each at the bottom of page 1, then copy these totals to the spaces indicated below on page 2.

**What does each score mean?**

**ARMT-TS.** A measure of emotional and attitudinal readiness to cope with present &/or future mobility loss, including the four subscales described below. (α .88)

**1. Anticipatory Anxiety (AA).** Anxiety and felt concern about loss of personal integrity and independence in the face of significant mobility loss. (α .87)

**2. Perceived Burden (PB).** Worry associated with becoming overly dependent and a burden on others. (α .79)

**3. Avoidance (AV).** A general resistance to address the topic of mobility loss. (α .52)

**4. Adverse Situation (AS).** A general perception of significant mobility loss as very harmful to individual well-being and quality of life. (α .63)

|         | Sum   | / # Items = | Mean Score | HIGH (significant) |
|---------|-------|-------------|------------|--------------------|
| ARMT-TS | _____ | / 24        | _____      | > 3.57             |
| 1_AA    | _____ | / 9         | _____      | > 3.81             |
| 2_PB    | _____ | / 5         | _____      | > 3.55             |
| 3_AV    | _____ | / 4         | _____      | > 3.6              |
| 4_AS    | _____ | / 6         | _____      | > 3.88             |

**High scores** suggest less readiness, high anxiety, and the presence of strongly held beliefs that may interfere with adaptive coping. Persons evidencing high total &/or subscale scores may benefit from a focused mobility intervention. **While less anxious and possibly more prepared, low scorers may still benefit from an education and planning-related intervention**

