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*School of Occupational Therapy*

Determining Content Validity of My “*Safe and Sound*” Plan, A Fall Risk Self-Assessment  
Workbook

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A research project submitted in partial fulfillment for the requirements of the Doctor of Occupational  
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Under the direction of the research advisor:

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# A Research Project Entitled

Determining Content Validity of My “*Safe and Sound*” Plan, A Fall Risk Self-Assessment Workbook

Submitted to the School of Occupational Therapy at University of Indianapolis in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree.

By

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## Abstract

Current falls prevention interventions vary in methodology and effectiveness, and there is need for consistent intervention in the clinical setting. The purpose of this study was to determine the content validity of the *My "Safe and Sound" Plan* workbook (Howard, 2016), a self-assessment for communicating evidence-based fall risk factors to clients. Three occupational therapists and two physical therapists in the outpatient setting completed surveys regarding the representativeness and clarity of workbook items. Results demonstrated interrater agreement for all representativeness items, and the interrater agreement for clarity items was .862. Two clarity items, *Exercises for Fall Prevention: Endurance* and *Exercises for Fall Prevention: Stretching*, did not demonstrate interrater agreement. The content validity index for the workbook was 1.00, indicating that items were representative of what is known about fall risks. Results indicated this tool clearly addressed material relevant to decreasing fall risk factors and would be appropriate for use in the outpatient setting. Member checking and qualitative responses were used to make revisions to the workbook. Implications for practice include respecting the agency and individuality of clients while addressing fall risk factors with clients. Utilizing a client-centered self-assessment may result in clients being more likely to follow through with recommendations.

*Keywords:* accidental falls, fall risk, content validity, self-assessment

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### Determining Content Validity of My “*Safe and Sound*” Plan, a Fall Risk Self-Assessment Workbook

Falls have been the leading cause of injuries among adults aged 65 and older (Centers for Disease Control and Prevention [CDC], 2015). Annually, over 25,000 older adults in the United States have died from injuries sustained during falling, and more than 800,000 have been hospitalized (CDC, 2015, 2016b; National Council on Aging [NCOA], n.d.). As of 2013, costs associated with falls were estimated to be \$34 billion (NCOA, n.d.), and impact on the individual extended beyond financial loss to impact physical and mental health as well (CDC, 2015; CDC, 2016a, NCOA, n.d.). The problem of fall risks, and the need to address falls prevention, has been an area addressed by the interprofessional team, including occupational and physical therapists, using a variety of approaches (MacKenzie, Clemson, & Roberts, 2013; Peterson, Finlayson, Elliott, Painter, & Clemson, 2012).

In order to accurately assess fall risk factors, one must first identify the risk factors that the literature notes as the most relevant. Investigators reviewed both extrinsic and intrinsic fall risk factors that have been identified by researchers or proposed by older adults themselves. Extrinsic risk factors have been defined as those that occur outside of an individual and are linked to the individual’s environment (Maruf, Muonwe, & Odetunde, 2016). Intrinsic risk factors were defined as those that originate within the individual and may increase his or her likelihood of falling (Chippendale & Boltz, 2015).

### **Fall Risk Factors Identified by Experts**

#### **Extrinsic Risk Factors**

##### **Physical environment.**

*Lighting.* Dim lighting has been associated with an increased risk of falling (Figueiro,

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Plitnick, Rea, Gras, & Rea, 2011; Huang, 2004). Figueiro et al. (2011) suggested that a lack of perceptual cues when walking in poor lighting may be responsible. When comparing a group at high risk for falls with a group at low risk for falls, lighting from ceiling fixtures was related to more consistent stepping patterns and greater velocity than lighting provided from a night light alone (Figueiro et al., 2011).

**Flooring.** Cluttered pathways, especially near the front entryway, and the addition of carpets and rugs to walkways have been associated with increased fall risk (Huang, 2004; Rosen, Mack, & Noonan, 2013). Specifically, researchers using retrospective data analysis found that older adults commonly experienced falls in places where carpets or rugs had gotten wet or where the flooring transitioned from having a carpet or rug to not having one (Rosen et al., 2013). Nonetheless, falling onto carpeted wooden flooring was associated with fewer sustained injuries (Simpson, Lamb, Roberts, Gardner, & Evans, 2004).

**Social environment.** The presence of and interactions with other people can impact fall risk in older adults (Chippendale & Boltz, 2015; Maruf et al., 2016). Older adults reported feeling safer venturing out in their neighborhoods when there were other people present, and for those participants who had experienced a fall outdoors in their neighborhoods, the help received from community members was appreciated (Chippendale & Boltz, 2015). Conversely, limiting social participation to less than twice per week was associated with increased fall risk (Maruf et al., 2016).

**Footwear.** Different types of footwear have had varying impacts on balance and gait features, which has, in turn, impacted fall risk. Observing walking patterns of older adult females, researchers compared the effects of wearing slippers, wearing well-fitted footwear, and going barefoot and concluded that well-fitted footwear allowed for increased velocity and foot

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clearance and decreased the chances of the heel slipping out of the shoe as compared to being barefoot or wearing slippers (Davis, Galna, Murphy, Williams, & Haines, 2016).

### **Intrinsic Risk Factors**

**Medical conditions.** Chronic pain, diabetes, and depression, most notably cognitive depressive symptoms, have been linked to increased risk of falling (Eggermont, Penninx, Jones, & Leveille, 2012; Nelson, Dufraux, & Cook, 2007; Roman de Mettelinge, Cambier, Calders, Van Den Noortgate, & Delbaere, 2013; Stubbs, Eggermont, Patchay, & Schofield, 2015). Those experiencing chronic pain at multiple sites within the body were at the highest risk for recurrent falls compared to those individuals not experiencing chronic pain (Stubbs, Eggermont, et al., 2015). For individuals with diabetes, researchers have suggested that additional physical and mental complications associated with the disease may have contributed to an increased risk of falling (Roman de Mettelinge et al., 2013). As physical risk factors accumulate, it is understandable that fall risk would be heightened.

**Muscle weakness and reduced functional mobility.** Multiple researchers have examined the impact of muscle weakness and mobility in relation to falls. In one study, muscle density in the lower legs was inversely related to fall risk (Frank-Wilson et al., 2016). In another study, decreased lower extremity muscle strength was correlated with older adults' difficulties in performing certain movements, specifically stooping, crouching, or kneeling, which was simultaneously linked to decreased functional performance (Hernandez, Goldberg, & Alexander, 2010, p. 68). Examining another movement, Ward et al. (2015) found that those individuals who took the longest time to stand up from being seated in a chair were at a significantly greater risk for falling.

**Vision.** Lord (2006) provided a literature review of visual risk factors that have been

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related to falling, which included contrast sensitivity and depth perception. However, researchers examining poor vision and limb functioning have suggested that visual impairment may not be as great of a fall risk as many people think (Steinman, Pynoos, & Nguyen, 2009). Poor vision was predictive of increased fall risk only until data for limb functioning was added to the analysis in the study conducted by Steinman et al. (2009), which led researchers to suggest that limb function was a stronger risk factor. Researchers concluded that, in order to remain active and maintain limb functioning, individuals would need visual capabilities or a modified exercise routine (Steinman et al., 2009). Vision was not completely dismissed as a risk factor.

**Medications.** Multiple types of medications have been associated with increased fall risk. Benzodiazepines taken alone or benzodiazepines and antidepressants, when taken as part of polypharmacy (taking more than four medications at once), were associated with increased fall risk (Richardson, Bennett, & Kenny, 2015). Though Richardson, Bennett, and Kenny (2015) found no correlation between antihypertensives and fall risk, Shimbo et al. (2016) found a correlation between beginning a new antihypertensive medication or intensifying the use of antihypertensive medication and short-term increased fall risk. Analyzing the same data set as Richardson, Bennett, and Kenny (2015), researchers additionally found that, for men only, use of medications with high anticholinergic activity was associated with increased risk for injurious falls (Richardson, Bennett, Maidment et al., 2015). Furthermore, in regard to sleep medications, researchers found that individuals taking sleep medication and experiencing poor sleep quality were at a significantly higher risk for falling when compared to a group of individuals who experienced quality sleep without the use of medications (Min, Kirkwood, Mays, & Slattum, 2016). However, participants who slept well with the use of medications and the group that reported poor sleep without medications showed no significant increased fall risk; it appears that

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the combination of poor sleep and the use of sleep medications produces the greatest risk for falls rather than sleep medications alone (Min et al., 2016). When considering these studies together, it appears that some, but not all medications, can increase fall risk for certain individuals.

**Inactivity.** Maruf et al. (2016) reported that fallers tended to be over the age of 65 and participated in less physical activity as compared to a group of non-fallers. In support of this finding, researchers of another study found that less walking was associated with a greater number of falls (Qin & Baccaglioni, 2016). Considering which participants had reported multiple falls in the previous year, researchers found that participants who walked less than 10 minutes per week were more likely to report multiple falls as compared to those participants who reported walking a minimum of 30 minutes each week (Qin & Baccaglioni, 2016). Falling resulting from such inactivity may be explained in part by findings from Sakurai et al. (2014), who found that older adults who spent less time outdoors, operationalized as going out once every 2-3 days or once a week or less as compared to going out at least once a day, were more likely to overestimate their ability on Step-Over Tests. For those participants classified as “fallers,” executive function was also related to their overestimations (Sakurai et al., 2014). It may be that inactivity in older adults, combined with cognitive factors, heightens the risk of falling. Although it may then seem advantageous to encourage walking in older adults, Okubo et al. (2015) found that walking significantly increased the fall risk for a group of individuals who already had multiple risk factors for falling. Before increasing activity, one should consider the co-occurrence of other risk factors.

**Fear of Falling.** Auais et al. (2016) analyzed data from the International Mobility in Aging Study (IMIAS) and found that, for participants in five different community settings across four countries, fear of falling (FOF) differed in distribution based on location but was

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significantly correlated to decreased mobility for all sites. In another study, Huang (2004) also found that FOF led to avoidance of some activities by a group of fallers. Though neither study directly measured FOF as an independent fall risk factor, both found correlations between FOF and other risk factors that have been reviewed above, including reduced functional mobility and inactivity, respectively.

### **Fall Risk Factors Identified by Older Adults**

Aside from those identified by researchers, older adults have identified additional fall risk factors. These have included curbs as a fall risk factor due to the lack of having a railing for support (Chippendale & Boltz, 2015; Vivrette, Rubenstein, Martin, Josephson, & Kramer, 2011). Along with weather-related conditions such as the presence of snow, ice, and puddles, older adults also perceived traffic to be a risk factor when walking in their neighborhoods, as they feared not having time to safely cross the street or being unable to see oncoming traffic in time (Chippendale & Boltz, 2015). For some older adults, these risk factors were significant enough, or produced enough fear, to limit their physical activity (Chippendale & Boltz, 2015).

### **Current Falls Prevention Interventions**

There are currently interventions in place that seek to lower the incidence of falls in older adults. Researchers have compiled credible information related to education-based, exercise-based, and multidisciplinary falls prevention interventions, yet the common concern raised on varying intervention types has been the large inconsistency of the components of the intervention (Oliver, Daly, Martin, & McMurdo, 2004). The urgency to find the optimal method to prevent falls has become a top priority for healthcare professionals caring for the older adult population because of the adverse health outcomes that result from a fall (Johnson, Kelly, Siric, Tran, & Overs, 2015).

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### **Multimedia Interventions**

Patient falls prevention education in the form of multimedia programs (written and video materials, follow up discussion(s) with care providers) has been utilized to teach older adults about the risks associated with falling as well as preventative measures to take to prevent falls (Haines et al., 2011; Hill, Etherton-Ber, & Haines, 2013; Williams & Hadler, 2015). Williams and Hadler (2015) concluded that individualized multimedia patient education in combination with staff training effectively reduced the rate of falls, injuries related to falls, and the number of patients who fell compared to usual falls prevention care. The overarching themes that emerged from literature regarding the educational approach for the prevention of falls in the older adult population were the feasibility, cost-effectiveness, and the positive response from the targeted population (Haines et al., 2011; Hill et al., 2013; Williams & Hadler, 2015).

### **Exercise Interventions**

Home and group-based falls prevention exercise programs have increased progressive balance, muscle strength, and overall stability, which ultimately all helped to stimulate functionality in the older adult population (Kyrдалen, Moen, Roysland, & Helbostad, 2014). Though investigators have observed these benefits, older adults have not always recognized exercise as a falls prevention method. Lam, Liamputtong, and Hill (2015) found that older adults did not view exercise as an impactful activity for preventing falls, but instead only recognized the other benefits that exercise offers. For example, motivating factors that contributed to the adherence of an exercise program by older adults were the possibility of staying independent longer, upholding current health, and improving physical balance and the ability to walk (DeGroot & Fagerström, 2011). Based on this finding, one could employ a number of techniques to increase adherence to an exercise-based intervention.

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**Personal exercise intervention.** Robinson, Newton, Jones, and Dawson (2014) found that self-management support and a motivating enabler promoted uptake and adherence of an exercise-based falls prevention program, and this may be linked to the increased self-confidence that education from a therapist can provide to an older adult (DeGroot & Fagerström, 2011). One potential way to motivate a client has been for the therapist to individualize the intervention. Campbell, MacAuley, McCrum, and Evans (2001) found personal goal setting to be one of the most influential motivational factors that led to behavior changes in older adults. In a study examining various interventions, the need to set specific, relevant goals with appropriate measures emerged (Haas, Mason, & Haines, 2014). If the goals were appropriately set and measured using criteria set out by the researchers, they were usually achieved (Haas, Mason, & Haines, 2014). Therefore, a personalized approach may increase client receptivity, and Child et al. (2012) found that clients were more likely to accept private interventions before public ones.

**Group exercise intervention.** Group settings have also been effective exercise interventions, and researchers have concluded that individuals should be offered a choice regarding the type of exercise in which they participate and whether the exercise is in a group or individual setting (Child et al., 2012). Walker, Porock, and Timmons (2011) found that most participants in a falls prevention program were passive during communication and only listened to the practitioner's instructions without participating in the dialog. However, multiple advantages have also been identified. A group setting offered a social environment, one in which encouragement from a support system, such as family members and friends, motivated the older adults to participate (Bennett & Winters-Stone, 2011; DeGroot & Fagerstrom, 2011). A group setting also offered an alternative to home-based exercise programs, in which Yardley et al. (2006) found that only 36.4% of older adults indicated they would consistently partake.

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Consistent with Yardley et al. (2006), Kyrдалen et al. (2014) found that an exercise-based falls prevention approach was more effectual in a group setting rather than individually, and this may have been due, in part, to older adults' preference to not be the only individual required to exercise (Bell et al., 2014). Overall, multiple exercise programs have been utilized as a method of falls prevention intervention, but the way that the exercise program was presented has had potential to affect the older adults' willingness to participate.

### **Multidisciplinary Interventions**

Multidisciplinary interventions have integrated education, exercise, environmental modification suggestions, and suggested behavioral changes to prevent falls (Hill-Westmoreland, Soeken, & Spellbring, 2002). These approaches have consistently displayed promising results to effectively prevent falls in the older adult population (Hill-Westmoreland et al., 2002; Stubbs, Brefka, & Denking, 2015) and have been time-efficient, informative, and effective in reducing the number of falls in the targeted population.

A multidisciplinary falls prevention approach incorporates various disciplines that make up the front line of preventing falls in the older adult population. At-risk individuals may potentially encounter general practitioners, home care and hospital nurses, physiotherapists, and OTs (Amacher et al., 2016). There is evidence that multifactorial interventions facilitated by health professionals with expertise in geriatric treatment have been most effective in reducing falls (Gillespie & Robertson, 2009). These multifactorial interventions have examined various aspects of the client and environment and addressed more than one aspect in order to ensure the best outcome for the client.

Compliance of the staff conducting the falls prevention intervention has been a crucial element of a successful approach (Jamtvedt, Young, Kristoffersen, O'Brien, & Oxman, 2006).

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Ohde et al. (2012) assessed the results of a multidisciplinary quality improvement (QI) activity that displayed a significant decrease in the number of falls per patient per year and a 9.4% increase in staff compliance that played a large contributing factor.

Amacher et al. (2016) investigated the benefits and barriers of a multidisciplinary falls prevention approach from the perspective of the involved seniors, general practitioners, home care nurses, and physiotherapists. The main benefits that were perceived included satisfaction with information and organization, expenditure of time for project participation, insight into risk of falling, motivation and self-efficacy in seniors, and the potential to prevent falls (Amacher et al., 2016). The health professionals conducting the intervention achieved the desired outcomes most effectively when they transitioned from the role of expert to the role of an enabler and supporter (Johansson, Borell, & Jonsson, 2014). The therapist-client relationship is therefore an integral part of this intervention.

### **Therapist-Client Communication**

In order to achieve an effective therapist-client relationship, the attitudes and beliefs of all parties involved should be considered, and barriers to communication need to be identified and remedied. The older adult client and the therapist may have differing views regarding falls. Høst, Hendriksen, and Borup (2011) found that older adults had two beliefs about falls. The first was that falls were unavoidable and were going to happen as a natural experience, and the second was that falls were humiliating (Høst et al., 2011). Additionally, many older individuals believed that in order to fall, they typically had to have a chronic health condition, have mobility impairment, or be on a significant amount of medication (Gopaul & Connelly, 2012). Walker et al. (2011) also found that almost all older adult participants had a definition of “fallers” that did not include themselves. For example, “one participant who described herself as a ‘non-faller’ had

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experienced five falls in an 18-month period” (Walker et al., 2011, p. 24).

Though in one study individuals at risk of falls viewed themselves as competent in their role of health management, this view was almost never shared by the practitioner (Child et al., 2012). Instead, practitioners talked to the clients as if they were no longer allowed to control their own health due to their status as individuals at risk of falling (Child et al., 2012). Older adults perceived this as condescension, and, in turn, clients were less likely to participate in recommended interventions (Child et al., 2012). Participation in fall risk programs and follow-through on behavioral changes for the older adult may also be influenced by the mood of the older adult, including whether or not he or she is depressed or anxious (Best, Davis, & Liu-Ambrose, 2015; Host et al., 2011). Such moods may impact the older adults’ motivation (Best et al., 2015) and should be taken into consideration when planning an intervention.

Older adults and practitioners have identified additional barriers. First, Child et al. (2012) found that clients encountered difficulties related to money, access, and time. Clients had difficulties paying for treatments as well as physical resources required by therapy (Child et al., 2012). Access was hindered by public transportation schedules and the limited mobility of clients (Child et al., 2012). The time required for the intervention was a prohibitive factor for some patients, and the schedule of the intervention prevented others from attending (Child et al., 2012).

Clients also struggled with logistical difficulties in a study by Haas, Mason, and Haines (2014). Cultural differences, specifically the belief of the inevitability of falls, were also a factor that prevented some clients from participating in falls prevention interventions (Haas et al., 2014). Furthermore, practitioners identified inadequate compensation, poor motivation/incentive, and poor communication among the healthcare team as reasons for not initiating an intervention

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plan for their clients (Milisen, Geeraerts, & Dejaeger, 2009). This was true of all the practitioners interviewed in the study: general practitioners, nurses, PTs, and OTs (Milisen et al., 2009).

Physical and occupational therapy practitioners must establish effective therapist-client communication in order for falls prevention interventions to be effective. Practitioners should take into account the client's personal beliefs and attitudes, and practitioners should take care not to stereotype older adult individuals as fallers (Walker et al., 2011). Though researchers of one study found discrepancy among healthcare workers in terms of which practitioner was responsible for assessment, all practitioners in the study believed that it was their responsibility to identify individuals at risk for falling (Milisen et al., 2009).

The literature discussing fall risk and falls prevention showed that falls are multifactorial, and an individual could fall for a variety of reasons. Falls prevention required a multidisciplinary approach, as practitioners from many professions worked toward a solution (Amacher et al., 2016; Hill-Westmoreland et al., 2002; Stubbs, Brefka, et al., 2015). Literature also supported multifactorial interventions, where more than one variable that contributed to falls was addressed (Rimland et al., 2016). However, health professionals and older adults encountered barriers such as money, access, and time, when seeking to reduce falls (Child et al., 2012). Furthermore, very few studies had addressed evidence-based strategies for reducing falls through education in the clinical setting (Hill-Westmoreland et al., 2002; Williams & Hadler, 2015).

Better tools are needed to provide time-efficient means of assessing clients' fall risks and engaging clients in falls prevention activities in the clinical setting. To answer this need, the primary investigator created a fall risk self-assessment and intervention workbook, entitled, *My "Safe and Sound" Plan for Staying Falls-Free* (Howard, 2016). The first version of the workbook was used for the primary investigator's doctoral project (Howard, Beitman, Walker, &

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Moore, 2016), and a second version was used in an additional unpublished research study (Howard et al., 2017). This present study utilized the second version of the *My “Safe and Sound” Plan* (Howard, 2016; see Appendix A) workbook, which included the following sections: (a) *How to Use This Book*, (b) *Introduction: Why do People Fall?*, (c) *What are the Risks?*, (d) *The First Step: A Fall Risk Screening*, and (e) *My Safe and Sound Plan* including eight sections titled *Change your mind; Manage Your Medicines; Managing Heart Rate, Rhythm, Blood Pressure; Vision; Footwear and Foot Care; Vitamin D and Calcium; Exercises for Fall Prevention*; and a *Home Safety Check*. Additionally, the workbook contained blank lines for the client to self-evaluate and write their own goals, for customization of the plan (Howard, 2016). Accordingly, there is a need to establish the validity of this evidence-based multifactorial fall risk education measure in a traditional clinical setting.

The purpose of this study was to determine the content validity of the *My “Safe and Sound” Plan* (Howard, 2016) workbook through review by a panel of experts who were occupational and physical therapy practitioners. Through survey responses, occupational and physical therapy practitioners reported on the *representativeness* and *clarity* of the workbook as a fall risk assessment and its usability as a self-assessment for individuals who are at risk for falling. Rubio, Berg-Weger, Tebb, Lee, & Rauch (2003) have defined *representativeness* as an item’s ability to represent the content domain. Rubio et al. (2003) have defined *clarity* as how clearly an item is worded.

### **Method**

In this study, investigators utilized a panel of experts to determine the content validity of the *My “Safe and Sound” Plan* (Howard, 2016) workbook through the method outlined by Rubio et al. (2003). This method included review of the workbook by occupational and physical

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therapy practitioners who have worked with the population at risk for falls.

### **Ethics**

The Director of the Human Research Protections Program (HRPP) approved this study as *exempt* on May 2, 2017 (UIndy Study #0823).

### **Recruitment**

The participants of the study were recruited via email, phone, and personal contact with managers and directors at three local rehabilitation facilities. Materials provided to the facilities included the *My "Safe and Sound" Plan* (Howard, 2016) workbook, sample survey questionnaire, and a sample Letter of Cooperation. Please refer to Appendix A for the version of the workbook distributed to participants. Two facilities agreed to participate. Both facilities were large health networks with both inpatient and outpatient facilities; the network representatives chose to limit participation to the outpatient setting, as they believed this to be a more appropriate avenue for use of the falls prevention workbook. The participants of this study included occupational and physical therapy practitioners working with individuals at risk for falls as defined by the practitioners in the clinical setting. To be included in the study, the practitioners had to be employed by a facility in which a Letter of Cooperation was provided and had to work with individuals at risk for falling on a regular basis. Following the outline set forth by Rubio et al. (2003), OT and PT practitioners were chosen for their work experience with the population of interest. Practitioners were excluded from the study if they were students. According to Rubio et al. (2003), a minimum of three professional participants are necessary when conducting research for content validity.

### **Definitions**

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*Fall*: “Event[s] which [result] in a person coming to rest inadvertently on the ground or floor or other lower level” (WHO, 2016).

*Fall risk*: Any intrinsic or extrinsic factor that places an individual at an increased potential for falling.

*Practitioners*: Individuals who are licensed to practice occupational or physical therapy in the state in which they practice.

*At-Risk Individual*: An individual who the practitioner deems to be at an increased risk for falls through their clinical reasoning and an assessment of fall risks specific to that individual.

### **Instruments**

Investigators distributed a survey via paper copies, per request of participating hospitals. Qualtrics® (Provo, UT), an online survey tool, was used for data storage and preliminary analysis. The survey included questions regarding the participants’ perception of the *My “Safe and Sound” Plan* (Howard, 2016) workbook as a tool for assessing and communicating fall risk factors to clients. The workbook was examined as an evaluation measure because it included both a self-assessment and self-home assessment. In order to establish content validity, the questionnaire addressed representativeness and clarity of items in the workbook using methods described in Rubio et al. (2003).

In Rubio et al. (2003), four criteria were used to evaluate a new measure: representativeness of the content domain, clarity of the item, factor structure, and comprehensiveness of the measure. Each criteria was rated on a scale from one to four, with anchors provided: a score of one means that the item is not representative or clear, while a score of four means that the item is representative or clear. Once results were collected, Rubio et al. (2003) calculated the interrater agreement for representativeness scores and for clarity scores.

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This determined the degree to which the experts were reliable in their ratings of one to four. In order to calculate interrater agreement, items rated on the four-point scale were dichotomized, combining one with two, and three with four. If both representativeness and clarity were to have satisfactory interrater agreement, the content validity index could be calculated using the same dichotomized information. The number of items rated three or four would be totaled, and divided by the total number of items. Ideally, the content validity index would be at least 0.8. The interrater agreement, content validity, and expert feedback would then be used to revise the measure. Please refer to Appendix B for the informed consent document and items included in the survey.

### **Data Collection Procedures**

Investigators followed procedures outlined by Rubio et al. (2003) for establishing content validity through use of a panel of experts. A sufficient number of participants recommended by Rubio et al. (2003) was 6 to 20 experts, with at least three being professional and three being lay experts. Since a previous study focused on obtaining data from lay experts (Howard et al., 2017), this study focused on obtaining data from professional experts. In order to obtain the recommended number of participants to represent the target population, the survey opened summer 2017 and closed after 90 days. Paper copies were manually entered into Qualtrics® for protection of participants and then scanned, electronically stored, and paper copies were shredded. The final question on the survey was voluntary and requested that participants provide names and phone numbers that were used for member checking in the data analysis process. These names and phone numbers were physically removed from the paper surveys and were not linked with the data that was entered into Qualtrics.

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### **Data Analysis**

Data were entered into SPSS (Version 25.0, 2017) for analysis. Investigators performed checks for data integrity, which consisted of frequencies and counts to check for missing data. Investigators limited this present study to examining representativeness and clarity of items, representativeness of the measure overall, and informal feedback regarding comprehensiveness of the measure. A factor validity index calculation was not relevant to the purpose of this study (Rubio et al., 2003).

Investigators established reliability by calculating inter-rater agreement (IRA) of clarity items and of representativeness items. Following the procedure outlined in Rubio et al. (2003), the items rated on a four-point numeric scale were dichotomized to combine one with two, and three with four. IRA was calculated for representativeness of items, for clarity of items, and for the representativeness of the measure as a whole. An acceptable level of IRA was considered to be .80 for each item (Rubio et al., 2003). Once reliability was established, investigators calculated the content validity index (CVI). Content validity was calculated based on the representativeness items only, as described by Rubio et al. (2003). To determine the CVI of the representativeness of each item, investigators transformed variables to combine 1 and 2 as not representative and 3 and 4 as representative. For each item, the number of experts who rated it 3 or 4 were totaled, then divided by the total number of experts. To calculate the CVI for the tool as a whole, investigators calculated the average CVI across all representativeness items by adding up all items with a CVI of at least .80 and dividing by the total number of items in the representativeness category. An acceptable level of CVI is .80 (Rubio et al., 2003). Qualitative comments were considered for workbook revisions, and investigators conducted member

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checking by conducting follow-up phone calls or emails to those participants who opted to provide their name and phone number. The follow-up questions may be viewed in Table 1.

### Results

#### Participants

Investigators distributed surveys to the two participating facilities, with a possibility of approximately 25 respondents. Seven surveys were returned, all on paper, but two surveys were discarded that were duplicates of the same respondent (as indicated by the respondent). The total sample consisted of five participants who completed the *My "Safe and Sound" Plan* (Howard, 2016) workbook survey. According to Rubio et al. (2003), a minimum of three professional participants are needed for a study of this type; therefore, five professional participants met this criteria. Participants included three OTs and two PTs with 11-30 (mean=20) years of experience working with individuals at risk for falls in an outpatient setting. Participants reported neurologic, vestibular, proprioceptive, and frequent falls as the most commonly treated primary diagnoses. All participants reported utilizing in-clinic practice as a fall risk education method, two participants reported using a handout, and one participant reported referring patients to a class for fall risk education. See Table 2 for participant characteristics.

#### Inter-Rater Agreement and Validity

The IRA for clarity items was .862. Twenty-five of 29 items had an IRA of .80 or above, indicating interrater agreement. The individual items for clarity that did not achieve IRA were *Exercises for Fall Prevention: Endurance*, and *Exercises for Fall Prevention: Stretching* (Table 3). The IRA for representativeness items was 1.00. All individual items for representativeness met the IRA of 1.00 (Table 4). See Table 5 for IRA of the entire measure. Representativeness items were shown to be reliable due to having 1.00 IRA, allowing investigators to proceed to

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calculate validity. All representativeness items had a CVI of .80 or 1.00 individually (Table 6). The CVI for the entire tool was 1.00, or 100%.

### **Qualitative Findings**

Table 7 provides qualitative responses obtained from the participants via the survey. Comments were too few to analyze with qualitative means. Rather, participants' comments informed the follow-up questions used for member checking.

### **Member Checking**

After all surveys were returned and results were analyzed, the investigators followed up with those participants who had indicated their willingness to provide additional feedback regarding proposed edits to the workbook. The primary investigator edited the tool according to feedback on the initial survey, and the investigators provided this updated version to the respondents. Two participants were contacted via email and phone calls, and one physical therapist agreed to participate. This participant responded via email and agreed that adding a one sentence explanation to each activity within the *The First Step: A Fall Risk Screening* might enhance clients' understanding. This participant also agreed that adding resources to the end of the workbook informing clients where they may obtain local access to items such as pill sorters and medical alert buttons would also be helpful to clients. To increase the clarity of items within the workbook, the participant suggested adding a description for length of time and intensity to the section about endurance exercises and specifying how long to hold a stretch and how many repetitions were needed to complete the stretching exercises. The participant noted that the investigators could also leave space in the workbook for the practitioner to fill in this information depending on the specific need of each client. Within the *Manage Your Medicines* section, for the item *take your medicines the right way*, the participant suggested replacing the phrase *the*

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*right way with as recommended or as indicated* to increase clarity. Lastly, the participant suggested changing the fall risk screen term *flexibility* to *functional reach* (Howard, 2016, p. 7) to be more representative.

### **Discussion**

The purpose of this study was to determine the content validity of the *My “Safe and Sound” Plan* (Howard, 2016) workbook. Investigators accomplished this by utilizing a panel of experts to review the workbook using the methodology described in Rubio et al. (2003). Experts found workbook items achieved representativeness, meaning the items accurately reflected the self-assessment of fall risk. Experts also found workbook items had clarity, meaning the items were appropriately and clearly written for the population at risk for falls. Oliver et al. (2004) stated that clinicians need a consistent method of addressing fall risks, and this evidence-based tool allows practitioners to address fall risks with their clients.

### **Workbook Changes**

Following member checking, the primary investigator revised the workbook based on feedback. Adjustments included the wording regarding medications and supplements and adding a text box beside each exercise so that practitioners could indicate what was recommended for the client. A blank page was added after exercises so that practitioners could add other content that they feel is appropriate for the client. A list of resources was added after the calendar, including sources for obtaining adaptive equipment for home modification. See Appendix C for a downloadable third version of the *My “Safe and Sound” Plan* workbook. These changes allowed for greater individualization of the workbook. Child et al. (2012) examined the behavior of older adults in falls prevention programs and found that they were less likely to participate in programs if their agency and individual needs were not addressed through a generic program. The edited

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*My “Safe and Sound” Plan* workbook allowed for individualized participation and programming, increasing the likelihood that clients would follow through with suggestions in the workbook.

### **Clarity of Items**

The following items did not have interrater agreement for the clarity of the item:

*Exercises for Fall Prevention: Stretching* and *Exercises for Fall Prevention: Endurance*. During member checking, the participant stated that there was some confusion about the definition of “clarity” which affected the responses. Providing definitions to practitioners for “clarity” and “representativeness” might improve the accuracy of IRA assessment.

Because the IRA was above .80 for both representativeness and clarity (Table 5), this workbook demonstrated content validity as defined by Rubio et al. (2003). The workbook therefore contains and addresses the items that investigators intended according to these experts. Oliver et al. (2004) stated the need for a better-validated assessment tool in clinical practice to assess falls. According to the participant experts, the *My “Safe and Sound” Plan* (Howard, 2016) workbook demonstrates content validity necessary to be an effective and valid tool. Future studies could repeat this methodology using the updated version of the workbook.

### **Implications for Practice**

Howard et al. (2017) examined the perspective of potential clients or users of the *My “Safe and Sound” Plan*. In the current research study, the practitioners who would use this workbook in practice contributed their perspective. Taken together, these two perspectives can assure content validity for using the *My “Safe and Sound” Plan* workbook to facilitate the therapeutic relationship with clients. Walker et al. (2011) found that many health practitioners held negative stereotypes of older adults as “fallers”, which negatively impacted the therapeutic

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relationship. It is important that practitioners respect the agency and individuality of clients while opening a dialogue about the fall risk factors of clients. This respectful dialogue ensures that practitioners do not carry any unconscious bias into interactions with clients, and that clients are more likely to follow through with any recommendations and/or programming.

Successful implementation for lifestyle changes requires individuals to have the desire to change. Extrinsic factors can facilitate the desire to change, but it is ultimately up to the individual to incorporate new behaviors into their lifestyle. Change does not occur in an instant, but rather through a gradual process. This process is described in research as the Transtheoretical Model of Behavior Change (TMBC) consisting of five stages: precontemplation (not aware of a need for change), contemplation (aware of need for change), preparation (plan to change), action (new behaviors are tried, but inconsistent), and maintenance (long-term establishment of behavior) (DiClemente & Prochaska, 1998). Healthcare practitioners must consider ways to facilitate movement through the stages of change when encouraging a client to adopt fall risk reduction behaviors. Investigators received qualitative and constructive feedback from participants that used the *My "Safe and Sound" Plan* workbook with their clients. The following participant response reflects behavior that is associated with the precontemplation stage of the TMBC:

This client was not very receptive to the information. He said it was all things he had been told before in various settings by various people. He chooses not to follow the recommendations and also continues to fall nearly daily (See Table 7, *Qualitative Responses*).

The statement demonstrated that the client was not considering implementing the change and did not recognize how choosing to follow recommendations could affect him on a personal level.

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Healthcare practitioners act as educators and supporters of new behaviors that can be implemented into the lifestyle of the at-risk population that they are working with. The *My "Safe and Sound" Plan* workbook was designed to be used as a tool for education of the client. It is important to note that traditional education techniques and tools are not effective with all clients as each individual moves through the stages of change at different rates (Zimmerman, Olsen, & Bosworth, 2000). Therefore, healthcare practitioners must stay attuned to the needs of each client and modify approaches to intervention accordingly.

### **Limitations**

Due to the time needed to allow for IRB approval and the academic schedule of the student investigators, there was a time delay from recruitment to distribution of the survey questions, which may have resulted in loss of interest or decreased participant response. Though the number of participants for the current study met the minimum recommended number of professional experts according to Rubio et al. (2003), the small number of participants was limited geographically, and demographic diversity was not assessed. Furthermore, the participants of this study represented only the practitioner side of fall risks. Regarding the survey questions, the investigators did not define "clear" and "representative" for our experts, which may have influenced participants' responses. The authors also did not have knowledge of what specific diagnoses the experts were considering, with the exception of one participant who mentioned "stroke." Following the methodology outlined in Rubio et al. (2003), the current study has similar limitations. There have been limitations with using experts for content validity; the experts were only able to provide their thoughts, which provided a subjective rather than objective measure (Rubio et al., 2003). Additionally, this study considered only one type of validity; therefore, additional psychometric testing may be indicated to establish validity (Rubio

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et al., 2003). Lastly, though the authors conducted member checking, there was no second iteration of expert review following suggested revisions, so the most current version of the workbook (Appendix C) has not been formally assessed.

### **Conclusion**

Consulting a panel of experts, investigators found the *My “Safe and Sound” Plan* (Howard, 2016) workbook demonstrated content validity and IRA. Since the present study examined only content validity, further research using the updated version of the workbook could address other types of validity. Using a tool that is valid and effective in clinical and home settings will allow clients to achieve the best outcomes for reducing fall risks.

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Table 1

*Member Checking Questions Sent Via Email*

1. Would changing the fall risk screen “flexibility” to “functional reach” make it more representative (pg. 7)?
2. If we would provide a short (1 sentence) explanation to the end of each activity on why it is important for balance (in the screening and exercises sections) such as examples below, do you think these edits would make it better to understand? (pg. 6-7)
  - a. Strength (pg. 6)- “You need to be strong to keep your balance”
  - b. Endurance (pg. 6)- “You need to be strong over and over to keep your balance”
  - c. Balance (pg. 6)- “You need to keep your balance when you cannot use your eyes”
  - d. Flexibility or Functional Reach (pg. 7)- “You need to be able to reach far without falling”
  - e. Balance Confidence (pg. 7)- “People usually know when something is wrong with their balance”
  - f. How would you word why stretching is important (at a 3rd grade level) (pg. 15)?
3. In the “manage your medicines” section, how do we make “the right way” clearer? (pg. 10)
4. What would make “endurance” in exercises more clear (pg. 18)?
  - a. Besides frequency, duration, rationale any other suggestions?
  - b. How would you word the endurance section of “exercises”?
5. What would make “stretching” in exercises more clear (pg.19)? More representative?
6. Suggestions for wording to get individuals started exercising? How do you challenge/push yourself while exercising?
7. We had a suggestion to provide more info on multitasking in the home safety assessment (pg. 24) Suggestions on what sections to add?
  - a. In “mobility”? In somewhere else?
8. What other resources could we include at the end that would be helpful?
  - a. Ideas we had were fall alert button, AHA, pill sorter

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Table 2

*Participant Characteristics*

Characteristic	n(%)
Content Experts (Outpatient Setting, 11-30 Years of Experience [mean=20])	
Occupational Therapists (OTs)	3(60%)
Physical Therapists (PTs)	2(40%)
Primary Diagnoses Seen:	
Orthopedic	1(20%)
Neurologic	4(80%)
Vestibular	4(80%)
Proprioceptive	3(60%)
Visual	2(40%)
Multifactorial	2(40%)
Frequent Falls	3(60%)
Current Fall Risk Education Method:	
Handout	2(40%)
In-Class	1(20%)
In-Clinic Practice	5(100%)

## DETERMINING CONTENT VALIDITY

Table 3

*Interrater Agreement on Clarity of Workbook Items*

Item	Expert Ranking on Scale 1 = Item is not representative or clear 2 = Item needs major revisions to be representative/clear 3 = Item needs minor revisions to be representative/clear 4 = Item is representative/clear	Frequency	Percent	Agreement?
Introduction: How to Use This Book	4	5	100	Yes
Introduction: Why do People Fall? Internal Reasons	4	5	100	Yes
Introduction: Why do People Fall? External Reasons	4	5	100	Yes
Introduction: What are the Risks?	4	5	100	Yes

## DETERMINING CONTENT VALIDITY

Fall Risk Screening: Strength	1 4	1 4	20 80	Yes
Fall Risk Screening: Endurance	1 4	1 4	20 80	Yes
Fall Risk Screening: Balance	1 4	1 4	20 80	Yes
Fall Risk Screening: Flexibility	1 4	1 4	20 80	Yes
Fall Risk Screening: Balance Confidence	4	5	100	Yes
My Safe and Sound Plan: Change your Mind	4	5	100	Yes
My Safe and Sound Plan: Manage your Medicines	4	5	100	Yes

## DETERMINING CONTENT VALIDITY

My Safe and Sound Plan: Manage your Heart	4	5	100	Yes
My Safe and Sound Plan: Vision	4	5	100	Yes
My Safe and Sound Plan: Footwear and Foot Care	4	5	100	Yes
My Safe and Sound Plan: Vitamin D and Calcium	4	5	100	Yes
Exercises for Fall Prevention: Strength	3	1	20	Yes
	4	4	80	
Exercises for Fall Prevention: Endurance	3	2	40	No
	4	3	60	
Exercises for Fall Prevention: Balance	3	1	20	Yes
	4	4	80	

## DETERMINING CONTENT VALIDITY

Exercises for Fall Prevention: Stretching	3 4	2 3	40 60	No
Home Safety Check: In The Home	4	5	100	Yes
Home Safety Check: Entrance, Halls, and Steps	4	5	100	Yes
Home Safety Check: Kitchen	4	5	100	Yes
Home Safety Check: Bathrooms	4	5	100	Yes
Home Safety Check: Bedroom	4	5	100	Yes
Home Safety Check: Living Room	4	5	100	Yes

## DETERMINING CONTENT VALIDITY

Home Safety Check: My Activities and Behaviors	4	5	100	Yes
Home Safety Check: My Mobility	4	5	100	Yes
Summary: Calendar- Fill in the Blank Goals	4	5	100	Yes
Summary: Calendar Tool	4	5	100	Yes

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## DETERMINING CONTENT VALIDITY

Table 4

*Interrater Agreement on Representativeness of Workbook Items*

Item	Expert Ranking on Scale 1 = Item is not representative or clear 2 = Item needs major revisions to be representative/clear 3 = Item needs minor revisions to be representative/clear 4 = Item is representative/clear	Frequency	Percent	Agreement?
Introduction: How to Use This Book	4	5	100	Yes
Introduction: Why do People Fall? Internal Reasons	4	5	100	Yes
Introduction: Why do People Fall? External Reasons	4	5	100	Yes
Introduction: What are the Risks?	4	5	100	Yes
Fall Risk Screening: Strength	4	5	100	Yes
Fall Risk Screening: Endurance	4	5	100	Yes

## DETERMINING CONTENT VALIDITY

Fall Risk Screening: Balance	4	5	100	Yes
Fall Risk Screening: Flexibility	3 4	1 4	20 80	Yes
Fall Risk Screening: Balance Confidence	4	5	100	Yes
My Safe and Sound Plan: Change your Mind	4	5	100	Yes
My Safe and Sound Plan: Manage your Medicines	4	5	100	Yes
My Safe and Sound Plan: Manage your Heart	4	5	100	Yes
My Safe and Sound Plan: Vision	4	5	100	Yes

## DETERMINING CONTENT VALIDITY

My Safe and Sound Plan: Footwear and Foot Care	4	5	100	Yes
My Safe and Sound Plan: Vitamin D and Calcium	4	5	100	Yes
Exercises for Fall Prevention: Strength	4	5	100	Yes
Exercises for Fall Prevention: Endurance	4	5	100	Yes
Exercises for Fall Prevention: Balance	4	5	100	Yes
Exercises for Fall Prevention: Stretching	3 4	1 4	20 80	Yes
Home Safety Check: In The Home	4	5	100	Yes
Home Safety Check: Entrance, Halls, and Steps	4	5	100	Yes

## DETERMINING CONTENT VALIDITY

Home Safety Check: Kitchen	4	5	100	Yes
Home Safety Check: Bathrooms	4	5	100	Yes
Home Safety Check: Bedroom	4	5	100	Yes
Home Safety Check: Living Room	4	5	100	Yes
Home Safety Check: My Activities and Behaviors	4	5	100	Yes
Home Safety Check: My Mobility	4	5	100	Yes
Summary: Calendar- Fill in the Blank Goals	4	5	100	Yes
Summary: Calendar Tool	4	5	100	Yes

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## DETERMINING CONTENT VALIDITY

Table 5

*Interrater Agreement (IRA) for Entire Measure*

	Total Number of Items	Items with 100% IRA with Dichotomous Variables	IRA Score
Clarity	29	25	.862
Representativeness	29	29	1.00

## DETERMINING CONTENT VALIDITY

Table 6

*Content Validity Index (CVI) for Representative Items*

Item Name	Expert Ranking on Scale 3 = Item needs minor improvements 4 = Item is representative/clear*	Frequency	Percent	CVI per Item
Introduction: How to use this book	4	5	100	1.00
Introduction: Why do People Fall? Internal Reasons	4	5	100	1.00
Introduction: Why do People Fall? External Reasons	4	5	100	1.00
Introduction: What are the Risks?	4	5	100	1.00
Fall Risk Screening: Strength	4	5	100	1.00
Fall Risk Screening: Endurance	4	5	100	1.00
Fall Risk Screening: Balance	4	5	100	1.00
Fall Risk Screening: Flexibility	3 4	1 4	20 80	1.00
Fall Risk Screening: Balance Confidence	4	5	100	1.00
My Safe and Sound Plan: Change Your Mind	4	5	100	1.00

## DETERMINING CONTENT VALIDITY

My Safe and Sound Plan: Manage Your Medicines	4	5	100	1.00
My Safe and Sound Plan: Manage Your Heart	4	5	100	1.00
My Safe and Sound Plan: Vision	4	5	100	1.00
My Safe and Sound Plan: Footwear and Foot Care	4	5	100	1.00
My Safe and Sound Plan: Vitamin D and Calcium	4	5	100	1.00
Exercises for Fall Prevention: Strength	4	5	100	1.00
Exercises for Fall Prevention: Endurance	4	5	100	1.00
Exercises for Fall Prevention: Balance	4	5	100	1.00
Exercises for Fall Prevention: Stretching	3 4	1 4	20 80	1.00
Home Safety Check: In the Home	4	5	100	1.00
Home Safety Check: Entrance, Halls, and Steps	4	5	100	1.00
Home Safety Check: Kitchen	4	5	100	1.00

## DETERMINING CONTENT VALIDITY

Home Safety Check: Bathrooms	4	5	100	1.00
Home Safety Check: Bedrooms	4	5	100	1.00
Home Safety Check: Living Room	4	5	100	1.00
Home Safety Check: My Activities and Behaviors	4	5	100	1.00
Home Safety Check: My Mobility	4	5	100	1.00
Summary: Calendar- Fill in the Blank Goals	4	5	100	1.00
Summary: Calendar Tool	4	5	100	1.00

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\*Scale items 3 & 4 are combined for Content Validity Index (Rubio et al., 2003)

## DETERMINING CONTENT VALIDITY

Table 7

*Qualitative Responses*

Survey Question	Qualitative Responses
Question 12: Comments on the Fall Risk Screen	<p>“It may be nice to explain why each of these contributing factors relate to fall prevention. Why is this important”</p> <p>“The flexibility test/screen is more balance screen clinically for me. I would say this is more functional reach/balance than flexibility.”</p> <p>“There should be more explanation as to why these factors are important to balance and preventing falls- makes it more meaningful for the pt”</p>
Question 14: Comments on the “My Safe and Sound Plan” Section	<p>“Client recognized he needs his cane, shared that he uses lots of night lights”</p> <p>“I find those are awesome points but patients need more explanation. -Medicine: maybe explain right way...take medicine at same time if appropriate. Often get patients who fail to do this. Also can you add references at end of book where to get things suggested such as pill sorter? or offer support of how to find more information. -With BP? Can you put norms or HTN risk levels or resources of American Heart Association.”</p> <p>“Loved these sections :)”</p> <p>“This section was incredibly important for the patient”</p>
Question 16: Comments on the Exercises for Fall Prevention Section	<p>“Again, why are these components important? Make this more meaningful for the patient”</p> <p>“Describe why these exercises might help prevent falls”</p> <p>“How many times do they do these? Example: just starting point. How long do you walk or</p>

## DETERMINING CONTENT VALIDITY

	add how they can get started or how to push yourself? Balance: SLS: I'd have a chair by patient in picture in more visible & eyes closed I usually have patients do in a corner for safety”
Question 18: Comments on the Home Safety Check	<p>“Loved these sections :)”</p> <p>“Pt reported using night lights; caution with throw rugs”</p> <p>“This is one of my favorite sections. It’s very thorough”</p>
Question 20: Comments on the Summary	“Loved it :)”
Question 21: Please comment on what was most helpful in the workbook	<p>“All of the workbook is clear and representative with good suggestions.”</p> <p>“Calendar for use”</p> <p>“Home Assessment Safe &amp; Sound Plan portion”</p> <p>“I loved that all the pieces were brought together in one reference book for the patient’s family.”</p> <p>“Page 9 and the exercises for fall prevention section”</p> <p>“Pt thought it was helpful especially with throw rugs”</p>
Question 22: Please comment on what was least helpful in the workbook	<p>“All beneficial”</p> <p>“All was information needed for this particular client.”</p> <p>“N/A”</p> <p>“P 14 Vitamin D and calcium. It does say to check with your doctor, but it is contra-indicated for some people, plus many people are already taking large doses of vitamins or</p>

## DETERMINING CONTENT VALIDITY

Question 23: Is there anything else that should be included in the workbook?

have imbalances with other vitamins or minerals.”

“Pt thought it was all helpful”

“Feel it was comprehensive”

“How distraction/multi-tasking can increase fall risk”

“I think patients take HEP more seriously if it’s meaningful to them. I verbally educated on this, but adding reasons why one needs to improve strength, balance, endurance to the book reminds them why it’s important each time they open the book.”

“No”

“Refer back to comments on exercises & screening section”

“Resources or blank to have resources listed for patient for ex: how/where to find info on fall alert buttons or websites for BP recommendations or where to buy pill sorter.”

Question 26: Any additional comments

“Dividers for different section for easy quick reference”

“Dividers for the different sections”

“Over time aware resources and links change so have a blank page that list topics where therapists can complete on how to find or list website for more info like AHA (American Heart Association, etc.).”

“This client was not very receptive to the information. He said it was all things he had been told before in various settings by various people. He chooses not to follow the recommendations (and also continues to fall nearly daily).”

## Appendix A.

*My “Safe and Sound” Plan for Staying Falls Free* workbook, version 2 (Howard, 2016).

[https://drive.google.com/file/d/0B\\_mz625D9kyLeG5XNnFSWW5LZU0/view?usp=sharing](https://drive.google.com/file/d/0B_mz625D9kyLeG5XNnFSWW5LZU0/view?usp=sharing)

## Appendix B.

Survey Questions.

<https://docs.google.com/a/uindy.edu/document/d/1cV3ZahtAIHhHLZQpQSL8YoP8fSNNnk2Dd0Ca8rOHcLU/edit?usp=sharing>

Appendix C.

*My “Safe and Sound” Plan for Staying Falls Free* workbook, version 3 (Howard, 2018).

<https://app.luminpdf.com/viewer/8up4w9bdzjNurhaP8/share?sk=7dbe2277-8a8d-47a0-8e19-e89d9676d575>