FEATURES OF THE ENVIRONMENT TO ASSESS

Nine Features and Rationale Important to Cognitive Impairment

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Introduction:

Presented in this handout are excerpts from "Assessment of the Environment of a Person with Cognitive Impairment: Instructions for Response Sheet" from the Environment part of the Cognitive Impairment Assessment Protocol (CIAP-Env) by Shelly Weaverdyck, PhD.

These excerpts identify **nine features of the environment** that are particularly relevant to a person with cognitive impairment. They also include **a brief rationale** for assessing each of the features. They focus on the cognitive aspects of the environment. There are many important **safety features** of the environment not mentioned in this handout, but that must also be evaluated.

This handout is a companion piece to each of the two CIAP-Env response sheets: the "Six Point Scale Response Sheet" and the "Yes/No Response Sheet". These **response sheets include the assessment questions** referred to in this handout. This handout does not include the assessment questions.

The Environment section of the Cognitive Impairment Assessment Protocol (CIAP -Env) is used to assess how well the physical environment uses the strengths and meets the needs of a person with cognitive impairment. It consists of questions you (as the assessor) ask yourself as you observe the environment. The questions are based on brain functioning and specific cognitive abilities. However, you do not need to know anything about the brain to use it. The questions are organized under nine general intervention concepts/features that address needs common among persons with cognitive impairment. The brief rationale for each of the intervention concepts is provided in this handout under the heading of each concept/feature.

The questions should be answered with a **particular person** in mind, since each person has different needs, strengths, and desires, and therefore, different requirements of the environment. They should also be **answered frequently** enough to accommodate changes in this person's needs, strengths, and desires. Your answers to the questions can **suggest effective intervention strategies** that **modify the environment**, to help this person feel comfortable and to successfully accomplish a task. The questions apply to any room in any setting.

Role of the Environment:

A physical environment is supportive when it helps a person **feel comfortable** and **be safe**, **stimulates** this person to have **energy** and a **desire** to do something, tells her/him **where things are**, and provides options for **things to do**. These questions help you assess the environment to see if it is supportive for this particular person using the environment at this time. The questions are based on very specific changes to the brain and ways in which the environment can make it easier or harder for the person to perform tasks of daily living.

The environment has a major impact on **behaviors**, on the amount of **distress** and **fatigue** a person experiences, and on how easily and successfully a carer can assist the person with cognitive impairment. Even when a person is sitting, apparently doing nothing, the environment can increase fatigue and confusion. These questions help explore why a person is feeling distressed, having trouble performing a task, or engaging in a particular behavior. They also suggest intervention strategies. Answers to these questions can help determine which interventions might be most effective in helping a person in a given moment, as well as helping her/him feel **happier** and function more **independently** in general.

I. CONTRAST: Look for contrasts in**:**

- Color intensities (dark against light)
- Amount of lighting (dim versus bright)
- Busyness (patterns versus plain solids, or commotion versus quiet)

Why? *With normal age related sensory changes and changes in the brain's ability to recognize (perceive) distinctions in the environment, items begin to blur together. A glossy white toilet against a light linoleum floor is difficult to distinguish, as is a white grab bar against a white tub or shower wall. Also, for the same reasons, items may be difficult to locate in space. Because brain changes might cause this person to respond easily to all stimuli, even irrelevant stimuli, it is best to highlight only the appropriate stimuli.*

II. PATTERNS: Look to ensure there are no visual patterns that could:

- Be distracting
- Be misinterpreted
- Cause nausea or dizziness
- Camouflage an object

Why? *Geometric or intricate repetitive patterns can make the floor look like it is moving or undulating which can alter the sense of balance in a person with vision and brain changes. This person may be tempted to pick up specks on the floor, thereby increasing the chance of falling. The floor should feel safe with no distracting stimuli.*

III. CLUTTER: Look to ensure there are not:

- Too many objects in the environment
- Objects and information that are recognized or useful only to the caregiver, and not to this person
- Objects that are too distracting or overwhelming

Why? *A person's ability to tolerate clutter (excess items or stimuli) varies with personality and with the type and amount of brain impairment. The ability to see a variety of objects, or hear a variety of sounds, and to use or make decisions about each one may be impaired. It is important to assess this person's ability at this time, and to remove clutter as needed. Presenting items one at a time or only when needed may help. There can be a fine balance between clutter and stimulation. Background music, even when soft, can distract this person during a task if she/he has trouble concentrating, or it can prevent this person from hearing another important sound, such as your voice. Sometimes a mirror reflects too much light or movement that is blinding or confusing. Sometimes a person can't recognize her or himself in the mirror and thinks someone else is in the room. Bathrooms frequently have too many hygiene items. Identifying which objects are dangerous will depend upon the particular person's abilities at a particular time. Objects are more dangerous when they are in abnormal or unexpected places (such as a knife in a craft cupboard) than when they are in normal places and used for normal purposes (such as a knife used to peel potatoes in a kitchen drawer).*

IV. CUEING: Look for information this person:

- Can understand
- Can see easily without searching
- Can see without moving too much
- Recognizes though various senses of hearing, seeing, touching, smelling, and tasting
- Can use and trust
- Is stimulated by

Why? *A person depends on the environment increasingly as the cognitive impairment becomes more severe. The brain's ability to figure out what to do in the absence of stimuli or when stimuli are unfamiliar is impaired. A person with severe cognitive impairment literally depends upon the environment to tell her/him what to do, where to go, and sometimes even how to feel. If a tub or shower doesn't look normal, it can be confusing and the person doesn't know what to do in this room. It can also be very frightening, even if the caregiver tries to explain what it is. The water in the tub may look much deeper than it is. Word signs may help if this person can read and if this person understands what she or he reads. Because of memory loss, however, cues must be repeated frequently to reassure and inform this person.*

V. NORMAL: Look for objects and spaces that:

- Are familiar and recognizable to this person
- Match this person's history, preferences, expectations, culture
- Are in the normal, expected place for this person

Why? *The brain's ability to figure out something it doesn't understand, or to adapt to change and unfamiliar objects, people, or circumstances may be impaired. If something doesn't look normal to this person, she/he may be unable to use the object or respond appropriately. She/he may also become frightened or anxious. Even minor changes or adaptations in an object or setting can cause this person to be unable to function or to be distressed. Even if this person seems to be used to an object, space, or place where an object is kept that is not normal, but has become routine, the abnormality could tax and fatigue this person unnecessarily.*

VI. HOMEY: Look for spaces and decor that:

- Feel cozy
- Help this person feel comfortable & relaxed
- Look and feel like home

Why? *The brain changes may prevent this person from remembering the caregiver's reassuring words or may make it difficult to understand words. This person likely relies heavily on nonverbal environmental indications of safety and supportive comfort for reassurance. Confusing or unfamiliar objects in the room drain the person's energy as she or he tries to make sense of the object. The body's ability to regulate its own body temperature may be erratic or impaired in some way, making the person heavily dependent on the temperature of the environment to stay warm. With normal aging a person usually feels colder than she or he used to, so for a room (particularly the bathroom during a bath or shower) to be warm enough for this person, the caregiver will likely be quite hot.*

VII. LIGHTING: Look to ensure there are no areas where:

- This person has to work hard to see well
- This person's eyes are required to change from light to dark or vice versa
- This person can easily misinterpret shapes and movement

Why? *Vision usually changes with normal aging. An older person often needs three times more light to read than a teenager. Changes in a person's ability to recognize and/or locate objects may also occur with impaired brain functioning. Therefore, increased lighting is especially important. Lighting should be bright, diffuse, even, and non-glaring, with no shadows or dim areas. Shadows and glare on the floor can easily be misinterpreted as wet spots, indentations, or changes in floor heights, because of changes in depth perception with normal aging and with brain changes. Side lighting removes the shadows on the face in the mirror. Removing the uneven lighting from open doors down hallways increases safety.*

VIII. TEXTURE: Look for varied textures that**:**

- Reduce noise
- Reduce glare
- Identify objects
- Are stimulating to touch

Why? *Smooth shiny surfaces and floors cause light and noise to bounce and echo. The room becomes very glaring and bright with light colored shiny surfaces. In a large noisy dining room or in the bathroom when water runs, the noise with echoes can be deafening to a person with a hearing aid or who is hearing impaired. Older people are usually sensitive to glare. Background noise often prevents them from hearing. When a person also has a cognitive impairment, it is very difficult for this person to compensate for the sensory loss by figuring out what someone is saying. Hence a person can become very frightened or annoyed and unable to function well, even with verbal reassurance or direction. Sometimes there is an increased dependency on touch as vision and hearing or the ability to recognize (perception) becomes more impaired. Texture provides information as well as interest. If this person becomes hypersensitive to touch, then adapting the material of clothing may be helpful.*

IX. PRIVACY: Look for ways this person can:

- Be alone, but able to see and get company or help when desired
- Keep personal items away from others and accessible when needed or wanted

Why? *Even when a person is very impaired, she or he may still retain a sense of modesty in a bedroom or bathroom or during a meal if she or he senses a reduced ability to eat without being messy. Privacy also reduces distracting stimuli, such as background noise and excessive movement. Depending on the individual, having a place to go, where there are doors that close, and perhaps lock, windows that can be covered, and items safely stored can be very important. The ability to seek and find company when desired is also important. Reducing the number of people in a room to only those who are necessary during a task, respects privacy as well as reduces confusion.*