

Cognitive Impairment Intervention Protocol (CIIP) for a Person with Cognitive Impairment

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ENVIRONMENT

INTRODUCTION AND INSTRUCTIONS

INTRODUCTION

This Cognitive Impairment Intervention Protocol (CIIP) is designed to be used with the Cognitive Impairment Assessment Protocol (CIAP). The CIIP gives a list of possible interventions for each response on the CIAP that suggests the environment needs to be more supportive for the person with cognitive impairment.

The four parts of the CIIP and CIAP, and the factors they address are: Cognition of the Person, Environment, Caregiver Interactions, and Task. Each part of the CIIP has its own introduction and instructions.

This part of the CIIP relates to the environment. Use the CIIP Environment and the CIAP Environment together.

The Environment CIAP is composed of three documents with the same questions in each document:

1. Yes/No Response Sheet
2. Six Point Scale Response Sheet
3. Instructions for Response Sheet

There is information in each of the CIAP Environment documents that will help you understand and use the Environment CIIP. The "Instructions" document gives examples and a rationale for the questions asked, based on brain functioning and cognition. All of the questions in the CIAP are included verbatim in the CIIP.

An important asset of both the CIAP and the CIIP is their ability to individualize assessment and intervention to a particular person with cognitive impairment at a particular time. Because the abilities and desires of a person with cognitive impairment will be different from every other person with cognitive impairment, and might fluctuate and change over time, it is important to assess frequently and to frequently modify interventions to adapt to the changes. As a person changes, the environment must change.

The brain has more difficulty figuring out what to do in the absence of enough or the right kind of information and support from the environment, or when the environment is unfamiliar. A person with severe cognitive impairment will likely depend heavily on the environment to tell her/him what to do, where to go, and sometimes even how to feel.

Often the cognitive impairment of a person becomes increasingly severe over time due to changes in the brain, and this environmental dependency increases even more.

The goal of this Environment CIIP is to create an environment that supports a particular person with cognitive impairment by: drawing on the strengths and abilities of this person, making tasks and interactions easier for this person, compensating for her/his specific impairments, stimulating this person to grow beyond her/his abilities, and most of all, helping this person feel pleasure and contentment.

In general, an environment that is supportive:

1. Helps a person with cognitive impairment to feel comfortable and be safe.
2. Stimulates a person to have energy and a desire to do something.
3. Tells this person where things are and what is happening, and provides options of what to do and how to participate.
4. Helps this person save energy for other pleasurable or difficult tasks by making this task as easy and relaxing as possible.
5. Helps this person feel competent, independent, respected, and engaged.
6. Supports only as much as this person needs or wants; not too much or too little.

At all times the environment should help this person relax and feel comfortable and competent. An environment that is familiar and predictable to this person is important, even when it changes to accommodate changes in this person's needs and desires.

The CIAP questions will help you assess the environment to see if it is supportive for a particular person at a specific time. Your responses to the questions create a profile of strengths and weaknesses about the effectiveness of the environment now for this person.

The list of CIIP intervention ideas that accompany each CIAP question offers you possible strategies to improve the effectiveness of the environment.

INSTRUCTIONS

1. Complete the Environment CIAP Yes/No Response Sheet or the Six Point Scale Response Sheet by following the CIAP instructions.
2. For each of your responses to the questions in the CIAP that is a "No" or a "1", "2", or "3" find the corresponding question in the CIIP. All of the questions in the CIAP are included verbatim in the CIIP.
3. Study the intervention ideas listed in the CIIP for each of the questions identified in step #2 above. Choose interventions to try that are appropriate for this person and her/his circumstances.
4. Evaluate the effectiveness of the implementation of the interventions you've chosen by completing the Environment CIAP again.
5. Do steps #1-4 periodically or whenever you recognize a change needs to be made. It is often helpful to go through these steps with other people, sometimes including the person with the cognitive impairment.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment: I. CONTRAST

Look for ways to increase contrast in:

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

A. Are there contrasts that draw attention to the areas of the room this person might need or want to use, for example, are the room decorations in safe areas more visibly engaging than decorations near dangerous unused exit doors?

1. Identify areas of the room this person might need or want to use most frequently, for example, the toilet in a bathroom or the table in a dining room.
2. Make areas this person needs or wants to use stand out from other areas, so they draw this person's attention. For example, increase the amount of color on the toilet; increase the light-dark difference between the toilet and the wall; or place an attractive centerpiece on the dining room table, so this person immediately notices the toilet or the table upon entering the room.
3. Use bright colors, interesting decorations and objects, or warm cozy furniture to make areas this person needs or wants to use stand out. For example, add a soft fuzzy seat cover to the toilet; an interesting eye-catching picture on the wall just above the toilet; a bright tablecloth on the table, brightly colored pillows on a less colorful sofa; a bright interesting blanket on a bed; a brightly colored porch swing; a closet door that contrasts with the wall.
4. Identify each area of the room this person might need to avoid or not want to use very frequently, for example, a door leading to stairs or the outside
5. Make each area of the room that is unsafe or less desirable, less obvious. For example, reduce the amount of light in that area, camouflage the door by painting it the same color as the wall around it, or simply make the colors and objects in that area less interesting or eye-catching.

B. Are there contrasts that highlight objects this person might need or want to use, for example, is there enough difference between the toilet seat and toilet, the closet door and surrounding wall, the towel and the wall, the shower nozzle and shower wall?

1. Identify objects this person might need or want to use.
2. Make objects this person might need or want to use stand out from the area surrounding them, so they draw this person's attention and help this person see an object and its exact location. For example, increase the color or light-dark differences between an object and the wall or surface behind it, such as between: the toilet and the floor so this person can easily recognize the location of the toilet when trying to sit on it; a railing or grab bar and the wall behind it, so she/he can more easily grab the railing or bar when falling; a dinner plate and the table underneath it, so she/he can more easily aim for the plate with a fork when eating; a colorful light switch on a plain wall; and the shower nozzle and the wall behind it.

3. Make objects this person might need or want to use different from other objects. For example, add color to the spoon to contrast with the fork; boldly write this person's name on the toothpaste tube to make more contrast with the tube of cream; use a different color, size, or shape of pill box for morning pills versus afternoon pills.
4. Increase the light-dark difference between objects. For example, between a chair and the floor; the floor and table; a white pill in a small dark dish; a colorful toothbrush on a plain neutral colored shelf; or a colorful washcloth on a white sink.
5. Serve foods that vary in color for easier identification. For example, serve green beans, red tomatoes, and white potatoes, rather than white potatoes, white pears, and white cauliflower in the same meal.
6. Avoid using too much contrast. Highlight only important objects. Let other objects fade into the background. For example, make this person's dinner plate and dishes all the same color (unless a particular dish must stand out), so that this person doesn't expend energy on noticing and interpreting unnecessary contrast, and can save energy for more important environmental stimuli.

C. Are edges of surfaces and changes in floor height highlighted with contrasts, such as edges of tables, stairs, bathtubs and shower thresholds so this person can see how high to lift her/his feet or avoid bumping into objects?

1. Identify all surface edges and changes in floor height in the room.
2. Highlight those surface edges that are important for this person to see and locate for safety and comfort. For example: edges of stairs or single steps into another room; corners of tables; edge of a porch; edge of a chair or sofa when trying to sit. Make the baseboards on walls match the wall color and contrast with the floor in light-dark intensity, so this person can more easily see exactly where the floor ends and the wall starts.
3. Highlight floor height changes that are important for this person to see and locate. Make it easier for this person to know when to step up and over something. For example, add color to raised thresholds into another room or into a shower.
4. Increase contrast to help with depth perception. For example, to clarify how deep the water in the bathtub is, add color to the water, a colorful mat on the bottom, or lines on the inside wall of the tub. Increase light-dark contrast between the toilet and the floor, and a chair and the floor.
5. Avoid using too much contrast. Highlight only real edges or changes in height. For example, avoid lines, borders, or patterns on floors or carpets that might be misinterpreted as a change in floor height, and thus cause this person to hesitate or increase the risk of falling. Avoid a change in floor color, or a contrasting threshold color from one room to another, if there is no change in floor height. Help this person feel completely safe when walking. Avoid using decoration or cues on the floor.
6. Avoid walls with different colors above and below the wainscoting so that this person doesn't expend energy on noticing and misinterpreting the contrast as a change in the surface, and can save energy for more accurate and important environmental information about safety.

D. Do objects this person needs to avoid look similar to the surrounding area, for example, do electrical outlets and dangerous door exits look similar to the surrounding wall?

1. Identify each object in the room this person might need to avoid or not want to use very frequently, for example a sharp knife in the kitchen, scissors in the sewing room, electrical outlets in the bathroom, a dangerous exit door, or a storage closet door.
2. Make each object in the room that is dangerous or less desirable, less obvious. Either remove the object or make it blend in with its background so this person will less likely notice it. For example, camouflage an electrical outlet, a dangerous exit door, or a storage closet door by painting it the same color as the wall around it.
3. Avoid changing the object so that it looks like something else (e.g., making an electrical outlet look like a wall decoration), unless it is necessary. Avoid increasing this person's confusion by giving inaccurate environmental information.

E. Is there a variety of moods created by various spaces, so this person can be drawn or led to an area that accommodates (by either matching or changing) his/her mood at the moment, such as a busy high-energy living room and a quiet cozy den?

1. Identify moods each room or area of a room might generate. Remind yourself that this person's emotions might be easily influenced by the mood of a room or space. For example, a bright, busy living room might foster a high energy, active mood in this person. A small quiet, cozy den with a fish tank might foster a calm quiet mood in this person.
2. Make sure there is a variety of places to go to help this person in her/his various moods. For example, when she/he is overly energetic or the environment of the room she/he is in is too stimulating, make sure there is a quiet space she/he can go to that will help her/him feel calm, without feeling isolated. Or when she/he is feeling energetic, make sure there is a room that can match her/his mood.
3. Decorate and furnish each room with objects and furniture that will create a mood and function intended for that room. Avoid relying primarily on people or events to create a mood. Alter the color, variety of objects, and amount of furniture and objects to create a mood.
4. Use a variety of cues to inform or to draw this person to each of the rooms or areas. Make each room visible to this person. If that is not possible, then create visible cues to alert this person to where the various rooms and spaces are. Use cognitive cues such as directional signs with words to indicate where rooms are. Make some of the cues emotional and not simply cognitive. For example, create a path of cues that might draw this person emotionally, so that when this person is sitting in a lively living room, she/he can see a luxurious plant and lamp that look quiet and cozy. She/he may be drawn emotionally to the lamp and plant, and from there see the quiet cozy den where she/he can rest calmly.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

II. PATTERNS

Look for ways to ensure there are no visual patterns that could:

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

A. Are the floor and all other surfaces free of patterns that seem to “move” when this person looks at them or when this person moves, such as alternating squares or blocks on floors, plaid, geometric, or repetitive patterns on floors, chairs, and blouses?

1. Examine all surfaces with patterns on them, particularly geometric or intricate repeating patterns, to ensure they do not appear to this person to be moving, vibrating, or undulating.
2. Remove “moving” patterns from large surfaces, such as floors, tablecloths, and sofas. For example, avoid alternating linoleum blocks on floors and curtains and plaids on curtains, sofas, and tablecloths.
3. Remove or cover “moving” patterns from surfaces visible to this person when she/he is moving, such as seats of chairs when she is preparing to sit, towels when drying off, or clothing she/he is putting on.
4. Avoid wearing clothes, particularly shirts or blouses with “moving” patterns, such as zigzagging patterns, plaids, multiple squares or figures.

B. Are all surfaces (such as floors, walls, curtains, counter tops, clothing) free of patterns, stripes, borders, or figures that look like changes in height or depth, bugs, specks, or pieces of paper to pick up?

7. Avoid and remove patterns, stripes, borders and figures that could be misinterpreted from all surfaces, including floors, walls, curtains, counter tops, tablecloths, and clothing. For example, remove figures that look like bugs or dirt to prevent this person from being distracted or from using energy unnecessarily to try to figure out what the figures really are. Help this person save energy for more important tasks.
8. Particularly avoid borders and figures on carpets, counter tops, tables and chairs, since they can be especially confusing and dangerous, by causing a misinterpretation of a figure or of height and depth. For example, avoid using carpet with a border, since a border can cause this person to hesitate or to raise her/his foot to step over the border and thus increase the risk of falling. Remove figures on the seat of a chair to prevent this person from leaning down to brush the chair seat off before sitting. Remove figures on the carpet to prevent this person from leaning down to pick up the “paper” or speck off the floor and thus increase the risk of falling. Help this person feel completely safe when walking and moving.

Avoid using decoration or cues on the floor and on chair seats.

9. Avoid figures on surfaces that might appear to be objects that are frightening, distracting, annoying, or hard to precisely locate. For example, avoid large figures of stylized flowers on the wall that might be misinterpreted as frightening faces, and avoid many little figures that make it hard for this person to aim for and locate a specific figure to touch.
10. When patterns cannot be removed, cover the patterns. Closely observe this person at all times to avoid misinterpretation of patterns that become uncovered, as changes in height or depth, bugs, specks, or pieces of paper to pick up. For example, reassure, assist, or distract this person when she/he is hesitating or raising her/his foot to cross a border on the carpet, leaning over to pick a "bug" or "piece of dirt" off the floor or wall, or trying to brush the seat of a chair off before sitting on it.

C. Are all objects easy to see because they are not in front of or beside a patterned surface or object, such as a pill or comb held in front of a patterned blouse?

1. Ensure that all objects this person may need or want to use, are easily visible to this person.
2. Remove each object from surfaces that are patterned or that draw this person's attention to the background more than to the object. For example, put a white pill in a small dark dish rather than in a hand in front of a brightly patterned shirt or blouse.
3. Remove each object from surfaces that camouflage or hide the object. Avoid surfaces with repetitive figures that make objects on the surface difficult to locate against the busy background. For example, put a dinner plate on a plain rather than figured tablecloth, soap on a plain washcloth, a hairbrush on a plain countertop, a chair in front of a plain or subtly decorated wall paper.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

III. CLUTTER

Look for ways 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

A. Is there an appropriate amount of clothing in the closet and drawers?

1. Watch this person to see how many items of clothing she/he is able to easily manage before becoming confused or frustrated, or before making errors in dressing or choice of clothing. For example, if this person begins to move articles of clothing around in her drawer rather than putting them on when she/he is trying to get dressed, reduce the number of clothing items in her drawer until she can more easily choose which clothes to wear.
2. Put only one type of clothing in each drawer, for example only socks in one drawer, rather than socks and undershirts in one drawer.
3. Reduce the number of items of each type of clothing in a drawer, for example, three pairs of socks rather than eight.
4. Put all of the clothes in one place, for example, in the closet on shelves and hanger rod, rather than some in the closet and some in the drawer.
5. Store out-of-season clothes and clothes that no longer fit in a space out of this person's sight.
6. Remove non-clothing items (such as handkerchiefs, combs, deodorant) from the drawers, shelves, or closets that hold clothing.
7. Bring the clothing to this person, and offer only one item at a time and in the appropriate order for dressing. For example, first offer her/him a shirt, then pants, when she/he is ready, as she/he dresses her/himself.
8. Frequently assess and adjust the number of clothing items presented. Have only the appropriate number present at a given time. Avoid removing too many items. Match the number and type of items present to this person's current abilities and desires. Have as many items and as much variety as possible to encourage choice, but not so many or such a variety that she/he is confused or frustrated.

B. Is there an appropriate number of items served at a meal or sitting on the table?

1. Watch this person when she/he is sitting at the dinner table to see how many items of food she/he is able to easily manage before becoming confused or frustrated, or before making errors in eating or choice of what to eat. For example, if this person begins to stack or simply move food around on her plate rather than eating it, reduce the number of food items in front of her/him until she/he can more easily eat and choose what to eat.

2. If this person sits at the table but gets distracted when she/he tries to eat, is unable to focus on the food in front of her/him, or doesn't eat, remove nonfood items from the table, such as centerpieces, napkins, and salt and pepper shakers, until she/he is able to focus on the food and to eat.
3. Reduce the number of other people visible to this person when she/he is trying to eat.
4. Reduce the number of people moving around when she/he is trying to eat.
5. Move nonfood items or other people's food out of reach, if she/he tries to eat them.
6. Clearly define the area of the table, for example with a placemat, intended for this person to eat from.
7. If necessary, offer only one food item at a time, for example only applesauce.
8. Reduce the number of items of each type of food, for example three green beans rather than eight.
9. Reduce the variety of food items served at once, for example only chicken and potatoes, rather than chicken, potatoes, beans, and applesauce.
10. Put all of the food in a smaller portion of the plate or on one side of the plate, rather than spread all around the plate.
11. If there are too many items served, remove excess items from this person's sight, rather than simply off to the side.
12. Remove any food items that are intended to be saved and eaten later, for example, dessert.
13. Frequently assess and adjust the number of items served. Serve only the appropriate number at a given time. Avoid removing too many items. Match the number and type of items present to this person's current abilities and desires. Have as many items and as much variety as possible to encourage choice, but not so many or such a variety that she/he is confused or frustrated.

C. Is there an appropriate limit to the variety, frequency, duration, and volume of sounds?

1. Listen to the sounds in the environment from this person's perspective. Watch this person to note her/his reactions to changes in the sounds, particularly for evidence of fatigue or confusion. Adjust the sounds until she/he seems to be comfortable and minimally confused.
2. Adjust the variety of sound, for example by reducing the number of people talking.
3. Adjust the frequency of sound, for example by using vibrating cell phones or discreet flashing lights out of sight of this person rather than phone ringers.
4. Adjust the duration of sound, for example by alternating loud boisterous times with quiet relaxing times, or vacuuming the carpet for short periods of time.
5. Adjust the volume of sound, for example by muffling appliances such as heaters and dishwashers, or adding texture to walls and floors to absorb noise, particularly in bathrooms and kitchens.
6. Keep or create only the sounds that are appropriately stimulating and informative, for example, bird songs from pet birds, or water running in the kitchen sink to draw attention to dirty dishes to be washed.
7. Remove sounds that are distracting or confusing, such as phones ringing with calls intended for someone other than this person.
8. Reduce background noise from appliances, televisions, radios, public address systems, and irrelevant conversations, so that she/he can hear an individual voice more easily.
9. Avoid removing all sound except for times she/he seems to need the quiet.

10. Remove sounds at night and during the day when she/he is sleeping. For example, turn off the ringer on the phone, turn off the television, avoid vacuuming or cleaning with loud equipment, use silent vibrating cell phones, remove all public address systems, avoid music piped into all rooms.
11. Avoid using sound to create a mood when the sound prevents her/him from concentrating on a task or from hearing well, for example, music during dinner.

D. Are all sounds recognizable?

- A. Consider this person's own history and experience. Listen to the sounds present in the environment and note which sounds she/he may and may not recognize. Watch and talk with her/him to discern which sounds she/he recognizes. Remove sounds that are not recognizable to this person.
- B. Watch this person over time as her/his ability to recognize sounds changes, and remove sounds as they become unrecognizable.
- C. Reduce unrecognized sounds when they cannot be removed.
- D. Interpret or explain unrecognized sounds when they cannot be removed. Use written notes if this person can read and understand, or talk to her/him as often as necessary.

E. Is there a limited number of people?

1. Include in the environment only people this person knows, as much as possible.
2. Reduce the number of people in her/his environment to the number she/he seems most comfortable with and least fatigued by.
3. Reduce the variety of people present in her/his environment.
4. Have only one caregiver assist this person at a time.
5. If more than one caregiver is necessary, have only one caregiver in this person's line of vision and only one caregiver talking to her/him, so she/he is paying attention to only one caregiver.
6. Have the same caregivers assisting this person every day as much as possible.

F. Are all people familiar to this person?

1. Include in the environment only people this person knows, as much as possible.
2. Have the same caregivers assisting this person every day as much as possible.
3. Assist this person in the same way every day as much as possible.

G. Are all notes, instructions, or equipment for caregivers out of sight?

1. Ensure that all items in the environment are relevant to this person.
2. Remove items that this person does not see as relevant to her/himself.
3. Remove from sight all items that are intended for caregivers only. For example, post notes and instructions behind cupboard doors or in the back of unused drawers.
4. Remove from sight equipment intended for caregivers to use. For example, put blood pressure cuffs, lifting devices, and medical equipment in unused closets and drawers.

H. Is the environment free of distracting sounds that might unintentionally elicit a response from this person, such as doorbells, phones, televisions, radios, irrelevant conversations, pagers, intercoms, public address systems)?

1. Watch this person to see if this person notices sounds unintended for her/him. For example, when a phone or doorbell rings, watch to see if she/he glances away from what she/he was looking at, jerks, tenses, frowns, tries to get up to answer it, asks about it, or in some way registers a response to the sound.
2. Remove sounds this person responds to that are not intended for this person, for example a ringing phone or doorbell, irrelevant conversations, or tragic events such as fires or other confusing images or comments made on television.

I. Is the environment free of objects that might attract unnecessary attention and prevent other objects or spaces from being noticed?

1. Remove each object in the environment that draws unnecessary attention, confuses this person, or prevents other objects from being noticed or used.
2. Remove unnecessary and distracting objects from this person's sight until the objects are needed for a task. Remove them again when the task is completed.
3. Camouflage objects that cannot be removed when the objects draw unnecessary attention.
4. Remove or cover mirrors that confuse this person by reflecting too much light or movement, for example in the bathroom or on the backs of buffets and hutches.
5. Remove or cover mirrors that confuse this person by creating the appearance of too many people or objects in the room, or if she/he does not recognize her/himself in the mirror.
6. Remove objects that are large and distracting from frequently used parts of the environment. For example, remove large art pieces from doors to the bathroom, bedspreads with confusing patterns from beds, flowered tablecloths from tables.

J. Is the environment free of objects that are dangerous for this person at this time, such as telephone cords on the floor or sharp corners on tables?

1. Monitor changes in this person frequently to assess how safely she/he can use potentially dangerous objects.
2. When necessary, remove all objects or parts of objects that might harm this person. For example, cover electrical outlets, remove power tools, remove stove knobs, avoid letting telephone cords lie on the floor, and round sharp corners of tables or stools.
3. Put all potentially dangerous items in the places they would normally be. For example, keep a paring knife in the kitchen and out of the craft closet.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

IV. CUEING

Look for ways to present information this person:

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

A. Does the environment tell this person what she/he needs to know, such as a note that says lunch is at 12:00, a clock (to say when the time is 12:00), a name or photo by the bedroom door, a sign identifying an object, room, or directions to another room?

1. Use cues, such as objects, signs, notes, color, and room décor to give this person enough information to function as comfortably and independently as possible.
2. Adjust the number and types of cues to meet this person's needs and desires as they change over time.
3. Avoid using so many cues that this person becomes confused or overwhelmed.
4. Use cues to give instructions or to tell this person what to do. For example, use a list to show the order of clothes to put on; a sign on the door that says "stop" or "private"; or an area of the bedroom used for putting on pajamas at night versus a different area of the bedroom for getting dressed in the morning.
5. Use cues to tell this person when to do something. For example, use a note that says when lunch is and a clock with the correct time; a dress draped over a caregiver's arm when it's time to get dressed; a recliner for daytime naps versus a bed for nighttime sleep.
6. Use cues to say where something is. For example, use a strip of bright color on the edge of steps; content labels on dresser drawers; a sign that points to the living room; an awning over a bathroom door; a clear cupboard front to show the cups inside; lines on the side of a bathtub to indicate how deep the water is or a mat to show where the bottom of the tub is; a placemat to show where this person's food is versus someone else's food; pictures of fruit decorating the dining room walls.
7. Use cues to say what an object is. For example, use a nameplate or photograph on this person's bedroom door, a caption that says who is in a photograph, pills of different colors.
8. Use cues to show how to get help. For example, have caregivers stay in areas visible to this person, a note by her/his night-light, a phone with large numbers and letters for dialing.
9. Adjust the number of the various types of cues to build on this person's strengths and compensate for her/his impairments. For example, present more cues that say where things are for someone with spatial problems than cues that say what to do.

10. Make the cues as honest and accurate as possible. Avoid cues that mislead or confuse. For example, use interesting, eye-catching objects to lure this person away from dangerous exit doors rather than dark paint on the floor that looks like a hole in front of the door.

B. Does the environment say what is expected of this person, and what options are available, for example, a basket of clean laundry ready to fold, a jigsaw puzzle to put together, stained glass and candlesticks to suggest it's time to worship, a warm homey atmosphere to invite this person to relax and feel at home here, or highly visible options for food choices?

1. Make all rooms visible to this person so she/he can be drawn to the room that matches her/his mood or needs at this particular time.
2. If rooms are not visible, present cues that indicate the existence and location of other rooms. For example, use signs with words, or use cues that draw this person emotionally onto a path toward a room with a different mood, such as a series of luxurious plants and soft lamps that might attract and draw this person to a quiet den from an active, noisy living room.
3. Make the function or purpose of each room very obvious by using cues such as descriptive décor; by making rooms small enough this person can see the entire room easily and understand what occurs in it; and by avoiding using one room for multiple purposes. For example, put pictures of fruit on the walls of the dining room, and perform tasks only in rooms normally used for those tasks, such as brushing teeth only in the bathroom.
4. When a room must be used for more than one purpose, use cues to indicate a change in purpose. For example, when a dining room becomes a worship space, remove or cover the dining room cues and replace them with religious pictures and candles, a robe on the minister, hymnbooks rather than large folders of music, religious choral music playing, and engage in normal (for this person) religious rituals.
5. Use cues of unfinished jobs to suggest an activity. For example, put a basket of clean unfolded laundry on a table, a broom or dust cloth easily visible, or a bowl of beans to be stemmed on the kitchen counter.
6. Use cues to tell this person when to do something. For example, use a note that says when lunch is, and a clock with the correct time, a dress draped over a caregiver's arm when it's time to get dressed, a recliner for daytime naps versus a bed for nighttime sleep.
7. To indicate this person is expected to make her/his own decisions, be competent and function as independently as possible, create the living space to feel and be like a home rather than a hospital or hotel. Help this person to feel as though she/he owns the space and that she/he is in control.

C. Are all cues recognizable? For example, do signs use written words only if this person can read and understand the words, or three dimensional objects when two dimensional drawings are no longer recognized? Do cues attract emotionally and not just inform cognitively? Are multiple senses addressed to increase recognition?

1. Use written notes and signs only when it is clear this person can read and understands what she/he reads.
2. For cues, use photos rather than drawings, and objects that look normal, such as a bathtub that looks like a normal bathtub.

3. Avoid using only cues that inform with words or that require this person to recognize her/his own moods or desires and to consciously choose alternatives. Use cues that invite rather than simply inform. If a room is not visible for example, present cues that draw this person emotionally and not simply inform her/him cognitively (such as a directional sign of words). For example, use cues that attract this person onto a path toward a room with a different mood, such as a series of luxurious plants and soft lamps that lead toward a quiet den and away from an active, noisy living room.
4. Adjust cues as this person's needs, abilities, and desires change. For example, when this person no longer interprets a particular color on her/his bedroom door as a cue to the bedroom, then add her/his name to the door. When the name on the bedroom door becomes unrecognizable as a cue (this person may be able to read it, but doesn't realize that means this is her/his bedroom), then replace it with a photo of this person. When she/he no longer recognizes her/himself, then use a picture of a bed. When she/he can no longer relate the two-dimensional picture to a three-dimensional object, keep the bedroom door open.
5. Avoid relying solely on visual cues. Use cues this person can hear, smell, taste, and feel. For example, use songs (such as marching songs while walking to the dining room), kitchen aromas (to indicate lunch is ready), sequences of tastes (to encourage eating), and fabrics or various textured wallpaper to reflect different rooms. Vary objects in multiple ways to remind this person of their function, for example, use a hand towel that is different in texture, size, thickness, and color from a washcloth, bath towel, dish cloth, and dish towel.

D. Are all cues accessible through at least one of the five senses: are they visible, audible, textured?

1. Modify any cue that is not accessible to this person; that she/he cannot see, hear, feel, taste, or smell. For example, make every visual cue visible, low enough or high enough for this person to see. Make every audible cue loud enough to be heard by this person. Make every textured cue exaggerated enough for this person to be able to feel it.
2. Adjust cues to accommodate changes in this person's needs and desires, even if the change is temporary. For example, if she/he is in a wheelchair for a few weeks, modify cues so they are low enough for her/him to see.
3. Replace cues when they become in need of repair, for example a frequently read note becomes torn or a sign too faded to read easily.

E. Are the cues frequent enough so this person doesn't have to remember, such as multiple signs to direct her/him to the bathroom?

1. Repeat cues as often as necessary for this person to be able to accomplish a task or to make use of the information. For example, present multiple cues to show her/him where the bathroom is, so that she/he doesn't get lost on the way there.
2. Make sure there are enough clocks and calendars in the area to meet this person's needs and desires.

F. Are other people in the room performing the same task as this person?

1. Perform a task in a room where other people are also performing the same task. For example, avoid combing this person's hair in a living room where other people are doing something else.

2. Have everyone in the room perform the task in the same way. For example, in a dining room have everyone, including the caregiver sit at a table to eat with this person, so that the cue to sit and eat is clear. Food should be brought to the table before this person has entered the dining room, so that there is minimal need to leave the table to get something.
3. If it is not possible for others to perform the same task, then move to a private area and perform the task alone with this person.
4. Model the task, (that is, do the task before or at the same time this person is performing the task) when she/he needs help understanding or performing the task, needs encouragement to perform the task, or is too easily distracted while performing the task. For example, sit closely at her/his side and sing so she/he can sing along with you.
5. Monitor the number of people performing a task with this person. Avoid overwhelming her/him by being in the presence of too many people or too much movement.

G. Is the environment free of unintentional cues that give this person inaccurate or inappropriate information, such as inaccurate clocks or artificial fruit?

1. Avoid providing cues that give information that is inaccurate, unintentional, distressing, dangerous, or likely to be misinterpreted, such as inaccurate clocks; body ointment tubes that look like toothpaste tubes; flower patterns on carpet; artificial fruit; or an environment that looks like a hospital rather than a home.
2. Make cues as honest and accurate as possible. Even when the cue is intended to divert this person from danger, avoid cues that intentionally mislead or confuse this person. For example, use interesting, eye-catching objects to lure this person away from dangerous exit doors rather than dark paint on the floor that looks like a hole in front of the door. Avoid using mirrors on exit doors to make this person think someone else is coming toward her/him.

H. Are there cues that stimulate this person to have the ability, energy, or desire to do something, such as notes about activity options, smells of bread baking, or a child's laughter?

1. Provide information or cues that stimulate this person to have the ability, energy, or desire to do something, such as realistic wall pictures to trigger conversations, interesting objects or smells to stimulate thoughts, ideas, or memories.
2. Present cues that give this person ideas of what to do, such as foot stools to sand, objects to sort, chores to do, laundry to fold.
3. Provide cues that comfort this person, or energize and help her/him to move with rhythm, such as music on a stereo or through headphones.
4. Increase comfortable and engaging sounds that entice this person to try something or to interact with someone, such as jokes or sweet singing rather than loud raucous singing.
5. Use cues to introduce activities or invite participation, such as a calendar listing events or the smells of bread baking.
6. Watch this person for evidence of confusion or fatigue to avoid over stimulation.
7. Maintain a balance of cues that stimulate this person to participate versus to simply watch.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

V. NORMAL

Look for ways to use only 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

A. Does the room look like a room this person would recognize or expect, for example, does the bathroom look normal or like this person's bathroom in the past?

1. Make each room look as normal to this person as possible, by modifying its décor, the objects in it, and activities that occur in the room. For example, make her/his bathroom look as normal or as much like her/his bathroom in the past, as possible. Assume normal means what this person is used to and expects upon entering the room.
2. Make the sounds and smells in the room seem normal to this person. For example, for breakfast, fry bacon in the kitchen with its smells and sizzling sounds.
3. Ensure the expectations of what occurs in this space feel normal to this person. For example, if this person is expected to live in this space, then make the space feel like her/his home and not like a hospital or hotel.
4. Match the task performed in a room with what would normally occur in that room. For example, comb hair in the bedroom or bathroom.
5. Use as many of this person's own personal possessions and familiar furniture arrangement in a room, as possible.

B. Do objects look normal, for example, the bathtub, dishes, toilet?

1. Use only objects, regardless of their size or frequency of use, which appear normal to this person. For example use only dishes that look like normal dishes, or stuffed animals and dolls that look real, when necessary.
2. Use objects that look, sound, feel, taste, and smell normal to this person, for example an old-fashioned radio, or real plants that are nontoxic.
3. Use objects that are simple yet normal looking. For example, use a real screwdriver rather than a children's play screwdriver, or an adult game played in a simplified way rather than a children's game.
4. Use objects that accommodate impairments this person has, but still look normal rather than "therapeutic" or medical. For example, a bathtub that looks like a normal, recognizable bathtub, or cupboard and door handles (instead of knobs) that look normal even as they accommodate stiffness or pain in fingers when grasping and turning.

C. Are tasks performed in the room where that task is normally performed; for example, hair combed in the bedroom rather than the living room?

1. Perform only tasks that are appropriate for the room. For example, comb hair in the bedroom rather than the living room. Discuss bathroom habits in a private place rather than in a public room.
2. Ensure other people in the room are also performing only tasks that are appropriate for that room.

D. Are objects in normal, expected places?

1. Place objects where this person might expect them to be, according to what has felt normal to her/him for most of her/his life, for example mirrors over sinks or dressers rather than in hallways or on exit doors.

E. When an object doesn't look normal, is it because it's dangerous or distressing and has been disguised; for example, does the door lock or an elevator button look like the center of a flower in a picture?

1. If necessary, disguise objects that are dangerous or upsetting. For example, surround a door lock or an elevator button with a picture and make the lock or button look like the center of a flower in the picture.
2. Make one object look like a normal different object, when necessary, for example an exit door look like a window.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment: VI. HOMEY

Look for ways to use only spaces and decor that:

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

A. Are all spaces (rooms and smaller areas within rooms) cozy and emotionally comforting?

1. Make all spaces convey reassurance, comfort, safety, and that this person belongs here, by modifying its décor, object, sounds, and the activities occurring in the room.
2. Make all spaces look, sound, feel, and smell comforting and relaxing to this person.
3. Use textures, for example, soft fluffy cushions on couches, warm fluffy towels in the bathroom.
4. Focus especially on rooms where upsetting events or task often take place, for example make the bathroom particularly soft and warm to foster a homey, luxurious, relaxing bath.
5. Watch this person and become familiar with her/his previous homes, to note in what ways the environment can more closely match her/his own home. Make the spaces seem as homelike as possible to reduce her/his feelings of wanting to go home.
6. Ensure the people in the environment are dressed in normal, homey clothes, rather than unusual, frightening clothes or uniforms.
7. As this person's needs and desires change, adapt the coziness of the spaces to the changes.

B. Are colors warm and bright?

1. Use warm bright colors in the décor and objects in a room. Focus especially on pillow cushions, and accents to avoid drawing unnecessary attention to walls and floors.
2. Use this person's preference for color and levels of color intensity. Rooms that have too many bright colors may feel overwhelming.
3. Avoid using too many pale colors that prevent the environment from giving this person something to see and respond to.
4. Watch this person to see how/she responds to various colors and color intensities. Discern how much of her response might be confusion due to the lack of sufficient contrast in the environment, and how much might be to the particular colors used.

C. Are all objects recognizable and comforting?

1. Remove from sight any objects that are not recognized and comforting to this person.
2. Keep favorite objects easily accessible to this person.
3. Remove from sight oddly shaped or unfamiliar objects such as hospital or cleaning equipment.
4. Avoid objects that are seen in shadow or down dark hallways that can be misinterpreted as frightening or menacing.

D. Would everything that is visible, normally be in this person's home?

1. Remove from sight objects that would not normally be in this person's home or in a particular room, for example a blood pressure cuff or scale in the living room.
2. Make all rooms of this person's living space feel and look like rooms in a home.
3. Use names for the rooms that are typically rooms in homes, for example living room rather than lounge.

E. Would all sounds normally be in this person's home?

1. Remove all sounds that would not normally be in this person's home or in a particular room, for example, intercoms, piped in music, public address systems, or alarms.
2. When alarms are necessary, use individual silent vibrating pagers or cell phones, rather than audible sounds.
3. When audible alarms are necessary, use tunes as the alarm sounds rather than buzzers.
4. Use calm quiet voices rather than loud shouting voices.
5. Avoid sounds that are usually heard in stressful conditions, for example alarms.

F. Is the temperature warm or cool enough?

1. When setting a room or water temperature, accommodate this person's possibly increased dependence on the environmental temperature to feel warm, due to the erratic or impaired ability of her/his body to regulate its own temperature.
2. Note this person's age, and increase the room or water temperature when she/he seems to need more warmth due to growing older.
3. Monitor the room and water temperature frequently to adjust as necessary. Respond to this person immediately when she seems to switch between saying the water is too hot or too cold. Avoid ignoring or distrusting her/his requests or comments. Respond by adapting the room or water temperature whenever this person says she/he feels cold or warm, or switches quickly from feeling too cold to feeling too hot.
4. When this person begins to take her/his clothes off or refuses to take her/his clothes off, see if she/he is feeling too hot or too cold. Offer cooler or warmer clothing.
5. During this person's bath or shower, keep the room very warm, use lots of warm towels in and out of the shower, and only uncover part of her/his body at a time to reduce exposure to cold temperatures.
6. Provide heating and air conditioning as necessary. Avoid making the room too cool or too warm.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

VII. LIGHTING

Look for ways 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

A. Is the lighting bright enough to read and see well?

1. Increase the amount of light to help this person see and read easily and well, to accommodate this person's possible impairment in the ability to recognize and locate objects, and to accommodate vision changes that occur with normal aging, if this person is over 50 years old.
2. Make all lighting bright, diffuse, even, and non-glaring, with no shadows or dim areas.
3. When shadows or glare are on the floor, and this person might misinterpret them as wet spots, indentations, or changes in floor heights because of changes in depth perception, slow down and explain to her/him that they only appear dangerous, but are actually not as they might seem.
4. Add side lighting to bathroom or bedroom mirrors to remove the shadows on the face in the mirror.
5. Remove the uneven lighting from open doors down hallways to increase safety, so that there are no patches of light and dark on the floor.
6. Adapt immediately to changes in this person's ability to see and to perceive. Monitor this person and the environment frequently to accommodate changes.

B. Are floors, walls, and surfaces free of all shadows?

1. Increase light or shift lighting sources to remove all shadows from all surfaces, including walls, floors, counters, and surfaces of objects.
2. When shadows are on the floor, and this person might misinterpret them as wet spots, indentations, changes in floor heights, or crawling bugs, because of changes in depth perception, slow down and explain to her/him that they only appear dangerous or problematic, but are actually not as they might seem.
3. Add side lighting to bathroom or bedroom mirrors to remove the shadows on the face in the mirror.
4. Remove the uneven lighting from open doors down hallways to increase safety, so that there are no patches of light and dark on the floor.

C. Do all areas of the room have the same amount of light, with the exception of reading lamps?

1. Increase lighting or shift lighting sources to remove any areas of a room that might be darker than other areas, for example, darker areas by windows, in corners, inside cupboards or closets, or down hallways. Areas covered by reading lamps are an exception.

D. Are stairways as bright as or brighter than other spaces?

1. Increase the lighting in stairways to match or exceed the amount of light in the rest of the nearby rooms.
2. Even in stairways that are dangerous or that this person would not want or need to use, keep the lighting bright for safety in case she/he does encounter them.
3. Increase the amount of light in all stairways, including indoor, outdoor, and basement stairs.

E. Are all objects easy to see and recognize, for example no objects in front of bright windows or down long hallways that look like frightening or confusing shadows and dark shapes?

1. Increase lighting and remove objects or dark shapes in darker areas that might be frightening or confusing to this person, especially if she/he has delusions or hallucinates. For example, remove objects in front of windows, between this person and a light source, and down long hallways.
2. Watch this person to note any objects she/he seems to not recognize. Remove or clearly identify the objects for her/him.
3. Monitor this person carefully for changes in her/his ability to see and recognize objects.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment:

VIII. TEXTURE

Look for ways to use varied textures that:

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

A. Do the floors, walls, ceilings and objects absorb sound?

1. Increase sound absorption throughout the environment, for example by using carpet, textured wallpaper, wall tapestries, drop textured ceilings, table cloths, food trays with mats.
2. Focus especially on the bathroom where sound of running water bouncing off highly reflective walls and tub, toilet, and sink surfaces can make it very difficult for this person to hear another person's voice, especially if she/he has a hearing aid or is hearing impaired. For example, cover the toilet seat with a soft cloth, hang cloth wall hangings, spread towels on towel racks, and use rubberized flooring.
3. Watch this person to see if she is able to hear well enough and add textured items to the environment to improve her hearing.

B. Are objects and surfaces free of glare, that is, the objects and surfaces do not reflect light that impedes vision, or look wet?

1. Remove glare from objects and surfaces such as floors, tabletops, dishes, magazines, photo albums, wall pictures, signs, and walls. Monitor the surfaces to keep them without glare, that is, the objects and surfaces do not reflect light in a way that impedes vision, or makes the surfaces look wet.
2. Remove glare by covering surfaces with light absorbent cloth, removing wax and shiny substances from the surfaces, and reducing the buffing when cleaning.
3. Watch this person to note if glare is a problem. Remind yourself, that people middle aged and older have a rapidly increasing difficulty with glare.
4. When there is glare, reassure this person that the glare is there but the surface is not wet. For example, if she/he hesitates to enter a kitchen that has a shiny floor, tell her/him that the floor is not wet.
5. Focus especially on the bathroom where light bouncing off highly reflective walls and tub, toilet, and sink surfaces can make it very difficult for this person to see and recognize objects, especially if she/he has vision impairment. Cover as many surfaces as possible with soft cloth.
6. Avoid white surfaces, such as white paper, tablecloths, towels, walls, shower curtains, since they are especially prone to glare.

C. Are there interesting surfaces or objects to feel?

1. Introduce as many interesting textured surfaces and objects as possible, for example various types of material in clothing, varied textures of foods, and textured walls and objects.
2. Keep objects with a variety of textures within easy reach and sight.
3. Focus especially on textured items, if this person is hearing and vision impaired, so she/he gets adequate tactile stimulation.
4. Watch this person to note if she/he is at times hypersensitive to touch. If she/he resists being touched, or seems to react when certain parts of her body are touched, then modify the material in her clothes and avoid having too many textured items in her/his environment.

D. Are floors non-slippery, even when wet?

1. Provide non-slippery floors for example, using carpet, rubberized, or textured floor material. Commercial products can be installed, or paint mixed with sand or very small pebbles can be used. If a paint mixture is used, avoid making the surface so rough it becomes dangerous to this person and increases her chances of falling.
2. Focus especially on the bathroom, kitchen, bathtubs, showers, patios, workshops and garages.
3. Avoid using throw rugs since they are easy to trip over and might slide.

E. Are hard surfaces covered to be safer, more interesting, easier to see and identify, or more light and sound absorbent?

1. Cover hard surfaces to be, for example, safer, more interesting, easier to see and identify, or more light and sound absorbent.
2. Cover hard surfaces with soft, absorbent and pretty or interesting cloths, for example colorful towels on towel racks and a cloth seat cover on a toilet.
3. Cover surfaces, such as tables with hard edges or corners, to soften the impact if this person bumps or falls into them.
4. Use a textured cloth under dinner plates to keep them from moving, especially if this person has trouble using both hands.
5. Focus especially on the bathroom where light-reflecting surfaces can be hard to see and recognize. Add a cloth cover that absorbs the light and also helps this person to find the surface location and to identify the surface.
6. Use curtains to absorb sound over windows and blinds.
7. Add texture to grab bars and rails so they are more firmly and easily gripped.

Cognitive Impairment Intervention Protocol (CIIP) for the Environment of a Person with Cognitive Impairment: IX. PRIVACY

Look for ways to enable this person to:

- 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

A. Is there space that belongs only to this person?

1. Preserve this person's modesty and dignity, and reduce distracting stimulation, by providing her/him with private space, regardless of the setting or of her/his level of functioning or awareness. For example, provide her/him with a bedroom when dressing, a bathroom when bathing, a private space when eating if she/he is embarrassed by food spills, and a place to retreat to when other spaces are too noisy or confusing.
2. Provide a place where others have to ask her/his permission to enter.
3. Discuss her needs in a private place where others won't hear.
4. Ensure she/he also has access to help and to caregivers when she/he is in her/his private space.
5. Reduce the number of people in the room to only those necessary for the performance of the task.

B. Do rooms have curtains on windows and doors that prevent other people from seeing in or entering without knocking?

1. Ensure all rooms, but in particular this person's private space, has curtains on the windows and doors to prevent other people from seeing in or entering without knocking.
2. Provide access to the curtains only from the inside of the room.
3. Draw the curtains only when privacy is wanted or needed, so that this person has visual access from outside the room to the inside of the room to see what it offers.
4. Avoid drawing the curtains when this person is inside the room unless she/he wants them closed.

C. Are there drawers and cupboards that belong only to this person?

1. Provide this person with drawers and cupboards that are private and accessible only to this person.
2. Ensure that other people must ask permission to look inside the cupboards and drawers.
3. Provide this person with the confidence that no one will remove what is in her/his drawers or cupboards.

D. Are there objects that belong only to this person?

1. Ensure that this person has her/his own personal objects, including for example, clothing, hygiene items, mementos, money, letters, and food.
2. Ensure that this person has a place to keep her/his objects that will be private.

E. Does this person always have access to her/his own private space and possessions?

1. Provide a private space that this person has access to whenever she/he wants it.
2. Provide easy access at all times to this person's own possessions.
3. Avoid the need for this person to ask for access to her/his space and possessions.
4. Label drawers, cupboards, or the door to the room, and have familiar items visible as needed to help her/him recognize her/his space.
5. Help her/him make her/his space a pleasant place for her/him to be in.