

# Hunting For Better Health Outcomes: A Geocaching Toolkit for Individuals with Mental Illnesses



Temple University  
**Collaborative**

On Community Inclusion of Individuals with Psychiatric Disabilities

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On Community Inclusion of Individuals with Psychiatric Disabilities

[www.tucollaborative.org](http://www.tucollaborative.org)

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The purpose of this manual is to describe strategies for recreation therapists and other mental health professionals to use geocaching as an intervention modality to improve health outcomes of individuals with serious mental illnesses (SMI). This manual provides an overview of geocaching, the health needs of individuals with SMI, the potential impact of geocaching on three health needs of individuals with SMI (i.e., cognitive, social, and physical needs), and intervention recommendations.

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## Section A. Breaking Down Geocaching

### What is Geocaching?

Geocaching is a worldwide mobile scavenger hunt using coordinates to find and hide caches. Users identify a nearby cache on the phone application (app) or the website and use a GPS device to find the object (cache) hidden at the identified location.

### What is a Cache?

A cache is typically an object, usually in a type of container that the geocacher searches for. Caches range in size and difficulty level, which is determined on a scale of 1-5. Most caches contain a logbook and pen so that finders can document when they found the cache. Some caches also contain tradeable trinkets that finders can swap for, trackables that finders can take to their next cache find to document its journey, and sometimes if the finder is the first to find, it can contain some cash!



### KINDS OF CACHES

#### Traditional

The original and most straightforward. These caches come in a variety of container sizes:

#### Micro Cache

Ex: a 35 mm film canister or a tiny storage box containing only a logbook or a log sheet.

#### Small Cache

Ex: a sandwich size plastic container or similar.

#### Regular Cache

Ex: a plastic container or ammo can about the size of a shoe box.

## KINDS OF CACHES

### Large Cache

Ex: a large bucket.

### Multi

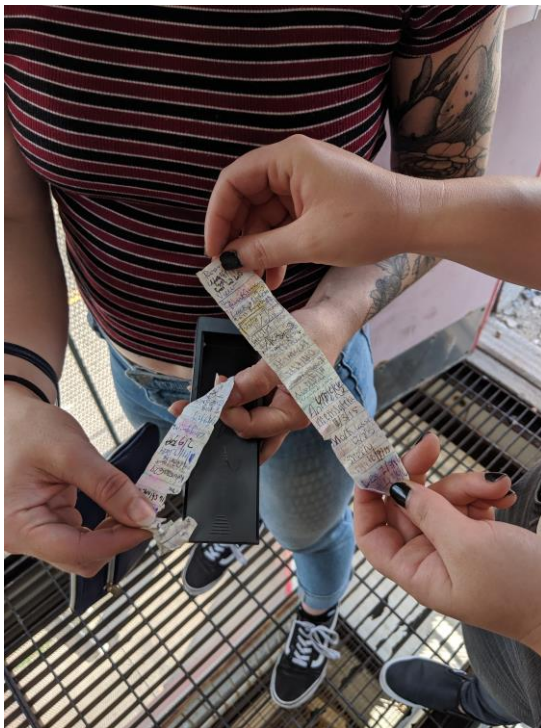
Once user finds this cache, there will be directions (coordinates) to a new cache.

### Mystery

Solve a puzzle before receiving the coordinates for the cache.

These are the three most typical caches. Small, regular and large caches typically contain trade items. Always make sure to read the description, hints, and attributes to help prepare for the hunt, this is detailed more later in this manual. If you need more information there is a helpful beginner's guide on the official [geocaching website](#). Caches also have a difficulty rating ranging from 1-5, where 1 represents the easiest find and 5 represents a devious cache.

## Geocaching - The Basics



Users can participate by accessing the mobile app (Geocaching) or the [website](#) with an active account. There is a free version which allows users to find all caches with low difficulty levels, this is a manageable starting account for new users who want to test if they enjoy geocaching. However, if users are interested in more challenging hunts, the premium membership costs about \$30 a year or \$10 for 3 months, which enables users to locate all cache difficulty levels.

The mobile app is very user friendly as it has navigation built in, however, a good data plan or Wi-Fi is needed for accurate navigation. A newer feature includes offline lists where users save caches on Wi-Fi for use offline; this is helpful when using a cellphone in areas without

Wi-Fi or data service. If using the website, users will need their own GPS system or app where they can input coordinates manually.

## Finding a Cache

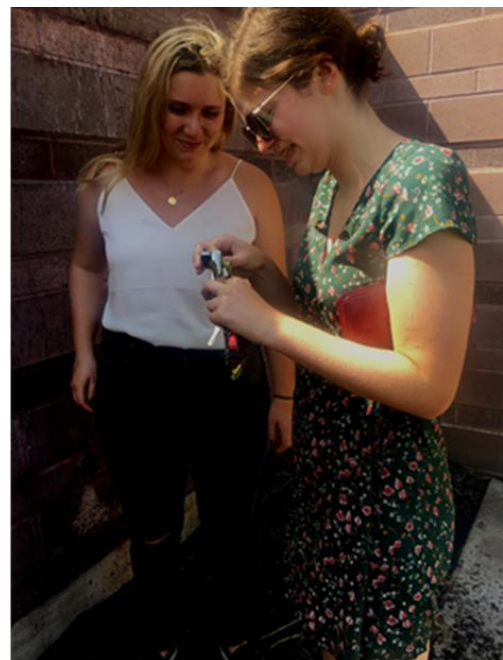
Once users have created an account, it is time for the fun part-hunting for the cache! Below are some steps for a first-time geocacher:

- 1 Open the app
- 2 Identify a nearby cache, usually a traditional, in the user's local communities so users are familiar with the area.  
Look for a lower difficulty and terrain level (1-2 suggested)
- 3 Read the description and title! Sometimes there are hints to where the cache is located.  
Check out when it was last time the cache was found, if it hasn't been found in a while the cache may be misplaced or stolen.  
Review the attributes located on cache page. This will help inform what the user will need to bring and any other suggestions for users from the cache owner.  
Click "Navigate to Cache"
- 4 Although the compass may direct you the quickest way, it may not be accessible.  
Using the map and navigation together will help determine waypoints and the best route. The navigation will not only guide you in the direction, like orienteering, but will also update user on distance to cache.
- 5 Once the user is within 20 feet, it is a good time to start looking around the area on what may look out of place.  
Caches will never be buried, but may be in holes, tree trunks, or even look like a screw on a sign!

## Can't find the Cache?

If users have been searching for a while and still cannot find it, check out the hints located on the cache main page. If the owner of the cache is nice enough, there will be a hint to help the user locate the cache. The photos option also may give hints of where the cache is or what it looks like. Another way to find hints is from other users who have logged if they found or didn't find. Many times, these users will leave clues or discuss how difficult it was to find.

If the user cannot find it, he or she can log the Did Not Find (DNF) option. It is important to log the DNF's because if there hasn't been any finds in a prolonged period of time, the owner will check it out to make sure the cache is still there or in the right place.



## Found it?

When the user finds it, celebrate! Now hit the Found It! Button and log any other comments that may help other users. Some acronyms include:

TFTC: Thanks for the Cache

FTF: First to Find

BYOP: Bring Your Own Pen

CO: Cache Owner

CITO: Cache In Trash Out-Take out some trash from the surrounding area!

More [Here](#)

## Hiding a cache!

How do these caches get hidden anyway? Great Question! The users hide them! The unique part about geocaching is that this is a user-ran community: anyone can hide a cache. If there is a hidden beautiful area in the user's neighborhood, think about hiding a cache to introduce more users to hidden secrets in the community.



Becoming a cache owner (CO) comes with responsibility, as it is up to the CO to maintain the cache. This means, if users are having trouble finding it, the CO may have to go see if it is in the right location, if a logbook is wet, it may need to be replaced. Therefore, it is helpful to make sure the cache is in a location that is easily accessed by the CO. In the event that the CO does not want to maintain the cache, they can transfer it to a user who does, or terminate the cache.

Becoming a CO may also give a person a sense of responsibility and ownership. It is exciting when a user finds the cache and thanks the CO for their contribution and exciting cache! Hiding a cache allows CO's to be creative and innovative in how they hide it and where. It is an opportunity to introduce users to a new place or educate them on an historical landmark in the community. This may contribute to CO's feeling more a part of the geocaching community.

## The Community

The unique part about geocaching is that there is the large community base. When users find caches they can log and leave a note on that cache's page. This gives the finder the opportunity to let the CO know if there is something wrong or needs replacing, or simply thank the CO for hiding it.

The online community is very active in the geocaching community. Blogs are posted on a regular basis by users and staff on geocaching stories or tips from other users, staff or partner bloggers. Community boards are a place where users can start discussions with others. This is an opportunity to discuss any tricks of the trades or cool caches to look out for.



If a user wants to build their community offline, there is also an option for special events or meet ups in the community near you. These are created by local geocachers to meet up over lunch or go hunt for a cache together. Sometimes visiting geocachers will create a meetup to meet some users in the area. Joining a local geocaching group is another option, which can be done on discussion boards or social media sites. Local groups are another way to stay up to date on events or issues in your local geocaching community.

Not only does geocaching have its own community of cachers, it also provides an opportunity for users to participate in an activity with other friends and family members. People of all ages can participate in geocaching. Users, after they feel competent in their participation level, may want to introduce their friends/family to this outdoor hunt.

Another facet of the community aspect of geocaching is that users may become more familiar with navigating their local community. Geocaching also allows users to explore different environments, after finding a cache, users may check out new places, like a park or store, around the cache. It may be an engaging tool to use in a new community to help increase familiarity with the area.



## Section B. Hunting the Literature: Searching for the (Geo) Cache Benefits

While Geocaching has the potential to be used as a tool to achieve health outcomes, it hasn't been extensively studied as a health intervention in the adult population. However, there is growing research on using geocaching with children and adolescents in education. Research indicates that there are many physical, social and cognitive benefits to participation in geocaching. In this section, the functional skills required to participate in geocaching are identified, followed by evidence within the research. While the use of Geocaching as an intervention for adults with SMI is relatively new, by demonstrating the required skill to complete the task and reviewing related research, we argue geocaching has the potential to achieve these health outcomes.

### Cognitive

As shown in Table 1, there are a variety of cognitive skills required to participate in geocaching. For instance, navigating to a cache requires users to multi-task, follow directions, way find, navigate, focus and read/interpret maps. Preliminary research suggests there may be cognitive benefits related to executive functioning (Bragg, Pullen, & Skinner, 2010; Matherson, Wright, Inman, & Wilson, 2008). Specifically, a study of social studies students found more students were engaged in discussions and learning, and encouraged use of problem-solving skills, teamwork and multitasking (Matherson, et al., 2008). Another classroom, math, focused on spatial mapping and using clear, concise, directional language (Bragg, Pullen, Skinner, 2010). Given these preliminary findings, it seems that geocaching may improve cognition, specifically as it relates to problem-solving skills, multitasking and using concise language.

### Social

There are social skills necessary for successful hunting individually and in a group. While hunting individually, being aware of surroundings is crucial. For instance, if there is a cache in a crowded area the user may look suspicious and be asked what they are doing. Users must be able to explain what they are doing and be ready to answer any further questions. When geocaching in a group, may require users to hone their skills to work as a team.

Although research is still preliminary in the area of geocaching, some research has been done on motivations to geocache. This has given the



opportunity for geocachers to share their social motivations when hunting. Geocaching may also promote more engagement in recreation with friends or family. In a survey of 133 geocachers, 50% of users participated with family (Schneider, Silverberg & Chavez, 2011). However users who participate alone may seek out autonomy, while individuals who hunt with family hope for greater opportunities to socialize (Schneider, Silverberg & Chavez, 2011). Geocaching in groups can also allow for collaboration to complete an overall goal (Ihamäki & Luimula). Regardless of participation alone or with others, geocaching still requires some social skills. After searching, users are able to share their experience on the mobile cache page. The flexibility of geocaching allows users to have multiple ways to engage which leads to greater use of the intervention to achieve better health outcomes.

## Physical

Geocaching requires some physical endurance even if the user is able to drive to the location, as there still may be some walking required based on the location of the hide. This makes geocaching a great intervention to add more difficulty as the user improves their physical endurance and activity competency. Ohara (2008) found that users wanted to push themselves physically to find the cache. Geocaching adds this additional motivation to regular physical activity because there is something to find at the end. In fact, Batista et al. (2006) found that due to the engaging and fun nature of geocaching, it may increase leisure-time physical activity in underactive youth. Many geocachers use this hobby as a way to be more active. Schneider, Silverberg and Chavez (2011) found that users endorsed geocaching as a means to increase physical activity.

**Table 1**

<b>GEOCACHING ACTIVITY ANALYSIS</b>	
<b>Components of Geocaching</b>	<b>Functional Skills/Potential Outcomes</b>
Opening App	Knowledge of Technology
Choosing Cache	Decision Making
	Problem Solving
	Wayfinding
	Reading/Interpreting Maps
Planning Route	Wayfinding
	Navigation
	Planning
	Preparation
Navigation	Knowledge of Area
	Endurance
	Stamina
	Multi-Tasking

## GEOCACHING ACTIVITY ANALYSIS

	<ul style="list-style-type: none"> <li>Following Directions</li> <li>Wayfinding</li> <li>Reading/Interpreting Maps</li> <li>Focus</li> </ul>
Locating Cache	<ul style="list-style-type: none"> <li>Concentration</li> <li>Attention to Detail</li> <li>Patience</li> <li>Multi-Tasking</li> <li>Dynamic Physical Movements (Crawling, Squatting, Reaching, ETC)</li> <li>Exploration</li> <li>Spatial Awareness</li> <li>Self-Efficacy</li> </ul>
Documenting Find/Did Not Find (DNF)	<ul style="list-style-type: none"> <li>Logging</li> <li>Taking Photo (optional)</li> <li>Response to Negative Feedback due to a Did Not Find</li> </ul>
Returning Cache	Memory

## Section C. Hunting the Literature: Needs of Individuals with Mental Illnesses

More and more individuals with serious mental illnesses (SMI) are living in the community. Although many mental health agencies have adopted the recovery model, many are struggling to support and encourage clients to be more engaged in their communities, leading to social isolation among other negative outcomes (Jacob, 2015). However, there is a desire to participate more in their communities among this population (Salzer et al., 2014), they may just need additional support in overcoming barriers to be successful.

In addition to the need to increase community participation, there are also a number of functional skills related to participation that are impacted by mental illness. These include social, cognitive, and physical health outcome areas. When these skills or resources are low for an individual, it may negatively impact his or her ability to participate independently in the community. Many interventions promote skill development, with little opportunity to practice in their community. Geocaching should be explored, as it creates opportunity to practice real world skills over multiple domains. Recreational Therapists or other interventionists can support more independent participation by identifying new and innovative interventions, like geocaching, that can be adapted to multiple outcomes and support levels.

In this section, we will review the current literature related to the cognitive, social, and physical needs of individuals with SMI.

## **Cognitive Needs**

Research has shown individuals with mental illnesses experience challenges with cognitive functioning (Keefe & Harvey, 2012). These issues make it more challenging to complete everyday tasks, leading to difficulty participating in work, play or other community-related activities. In fact, Bowie et al., (2008) discovered that individuals with better neurocognitive skills had better outcomes in the community. Every day, problems arise that challenge individuals to adjust, however, with impairments in executive functioning (e.g. planning, organization, memory), it is difficult to successfully and quickly adapt when in the real world (Keefe & Harvey, 2012).



More specific areas of cognition are also affected, which impact everyday functioning, especially social participation. Mental illnesses impact cognitive processing speeds, which can affect task management (Keefe & Harvey, 2012) and social functioning (Bowie et al., 2008). Being unable to process surroundings, people and social setting at a quick pace may discourage individuals with SMI from attempting new activities. Memory challenges also impact an individual's planning, attention (Silver et al., 2003), and vigilance which is related to developing diverse social skills (Greene, 1996).

## Social Needs

Individuals with mental illnesses are at a risk for social isolation and loneliness. Many individuals risk isolation due to limited opportunities for social engagement and fear of stigma (Davidson & Stayner, 1997). Many times, individuals with SMI are unemployed and do not have the financial means to participate in recreation and leisure activities (Davidson & Stayner, 1997). Without opportunities to participate in social settings, individual's social networks may become very limited.

The research presented above suggests cognition impacts social functioning. Social behavior and social problem solving is related to community functioning (Couture, Penn, & Roberts, 2006, Fett et al., 2011). Along with the challenges related to cognitive deficits, restricted social setting also impacts social health of individuals with SMI (Davidson & Stayner, 1997).



## Physical Needs

The occurrence of chronic physical illnesses is higher among individuals with SMI than those without (Robson & Gray, 2007). This contributes to shortened life expectancy that individuals with SMI have. Physical inactivity is a contributing risk factor. Only 4% of individuals with SMI report participating in the recommended amount of physical activity (Lassenius et al., 2013). High levels of sedentary activity is more common in this population in comparison to their non-diagnosed counterparts (Craft & Landers, 1998).

Although physical activity is correlated to decreasing the risk of cardiovascular disease, people with SMI continue to have lower mortality rates and are more likely to have a chronic illness (Robson & Gray, 2007). In fact, Individuals with SMI are 2x more likely to have cardiovascular disease (Scott & Happel, 2011). There is an urgent need for improved physical health among individuals with SMI, and physical activity has the potential to improve quality of life (Richardson et al., 2005).

## Section D: Recommendations for Practice

### Putting it all Together

After hunting the literature, using geocaching with individuals with SMI may have an impact on cognitive, social and physical outcomes due to the overlap of needs and benefits. Geocaching is unique as it is a mainstream app that individuals can use independently wherever they are. Developing interventions that clients may use during therapy as well as independently may inspire more active engagement within their communities leading to lasting health outcomes.

More and more people have access to mobile technologies. In fact, 72% of individuals with SMI own a mobile device (Ben-Zeev, D. et al 2013). With telehealth becoming a more popular intervention for health care, incorporating mobile apps/interventions in their support plan may be more successful and engaging for clients. Using an innovative mobile app may also have social implications, as mobile technologies provide opportunities for individuals with SMI to feel more connected (Miller et al., 2015). Mobile technologies also provide an opportunity for individuals to self-direct their treatment and engage in intervention activities outside of the treatment facility. Geocaching provides a platform that can not only promote health outcomes, but also provide an activity that can be accessed anywhere and engaged in without “looking like therapy.”

Individuals with SMI reported that their most common physical activity was walking (Daumit et al., 2005). Geocaching, since it is mostly done by walking, provides an activity that can encourage greater amounts of physical activity. Participants can challenge themselves to walk further by selecting caches that are further in distance. Quick finds may also be a way to promote physical activity, and may reinforce the idea that any amount of physical activity is better than none.

Because there are skill levels within geocaching, it is easy to incorporate challenges over time to build the user’s confidence. It is also a great tool because many users can complete activities independently after working with therapist to build skills on their own in their communities.

# Intervention Considerations

## Social

As emphasized, geocaching is flexible as it can be done alone or in groups. However, when the user feels competent in geocaching, it provides more initiation of social opportunities. Individuals may want to invite friends or family to find a cache with them, which may give them a sense of competence in this skill and feel a sense of leadership. Finding a cache with a group can encourage bonding among members. Hiding a cache also allows for individuals to share a local spot they enjoy or historical knowledge they want to share with the community. Additionally, if users increase their passion for geocaching, they may introduce it to their communities to start a geocache group or a local multi-cache in their area.



## Environment

The exciting part about geocaching is they are located all over the country, in rural and urban environments. In fact, if one were to search right now in the area, there would probably be at least one cache in close proximity. In general, rural areas will have more opportunities to find larger caches, while urban areas may have smaller caches. This is due to the fact that there is less coverage in a city for large boxes to be discrete and there is more foot traffic by “non-geocachers,” or as geocachers call them “muggles”, in urban areas. When searching in the city, users may need a street map to plan out what path they should take to get there due to the fact the compass may navigate through barriers for the most direct route.

## Equipment

Users have two options when participating in geocaching: Mobile Application & Website. Both of these options require an account, either a free version or a premium version with a fee (\$30/year). Using the free version still gives users plenty of caches and is a good app to test out whether this is a right activity for the user.

Mobile: The mobile app, which is available on android and apple products wherever apps are downloaded (e.g. apple store), is an easy to use application that is available on android and apple. The app uses the user's location and Wi-Fi to locate app, which means that unlimited data is useful if users plan to cache a lot. However, the app does

allow for offline lists to save so users can plan their routes and not rely on Wi-Fi. This is especially useful when going to areas without good cell phone signal.

Website: The [website](#) is another great way to geocache if users feel more comfortable. However, users must have access to a GPS so they can input the coordinates. This takes some more skill, as users need to use a GPS, some GPS have maps on the screen while others require an additional map. If users do use the website, having a geocache journal is helpful to keep tracking notes or to have notes and description available.

When geocaching, it is important to be prepared, especially when you will have to walk farther distances to find it. One tip is to check the attributes section (PHOTO) of the cache you are looking for which will usually provide the user with various information that will aid in the planning process. For instance, attributes may include special equipment needed, conditions and/or any hazards. Below is what is my geocaching bag, this is a great starter pack for new geocachers!

### WHAT IS IN MY GEOCACHE BAG?

Phone or GPS	To find the cache! Need the app to navigate, make sure you save caches of interest to an offline list for more accurate navigation. If your phone has a camera, make sure to take photos to post on the board or to show your friends!
Tweezers	To pull out logs that are in microcaches or a microcache in a tight space.
Water	To drink! You may get thirsty when hunting.
Flashlight	Some of the caches may be hidden in dark places, like tree trunks!
Sunscreen	For those long geocaching days when the weather is nice. No sunburn for me!
Pen	Sometimes there is nothing to sign a log with, especially when they are small caches! BYOP.
Trinkets/Tradeables	Want to trade items? I always bring a personalized coin to place in caches I found!

For the more advanced geocacher, Groundspeak (2017) recommends bringing a retractable mirror to look under benches, a magnetic pen for the hard to reach caches and a log roller for those small cache logs that are hard to reroll.



## **Safety Considerations**

It is important to educate users on safety, this may be adapted to urban and rural environments. No geocaches are ever placed on private property without the owner's permission.

### **Urban**

In a city, safety may be more focused on paying attention to surroundings, such as, crossing streets and possible theft. In high muggle areas, it may be good to be more stealth when finding, or be prepared to answer why you may look suspicious. However, educating users on the benefit of going in groups or preparing an explanation of what geocaching is, are ways to avoid this. I always take these questions as an opportunity to educate muggles on geocaching, and sometimes invite them to help me find them!

### **Rural**

In rural areas, focusing more on paying attention to your surroundings, plant safety, and taking care of landscape. Making sure users are knowledgeable of area and distance they will be walking. Make sure people wear sneakers!

### **Natural Environment**

In the woods, sometimes caches are hidden off the beaten trail. This may mean users will be walking in weeds and plants. Wearing pants and sneakers will make it a more comfortable experience. Make sure to bring a map and remember where the entrance/exit is to a trail!

## **Other Considerations**

### **Access to technology**

Geocaching is technology heavy. Although the apps are user-friendly, it may take some orientation to the app and how to use it. Using geocaching on a phone makes it more reliable on access to Wi-Fi/data for increased accuracy. There have been many times I have been in the woods searching for a cache that changes directions and distance. Although this is frustrating, saving offline lists, or having patience and appreciating the natural environment are ways to reduce frustration.

### **Accessibility**

Although geocache.com does allow CO's to attribute what caches are handicap accessible, they may not be accurate. Many times caches are located off the beaten path on uneven terrain, some may require hiking or climbing. It may also require looking on the ground or reaching high up in the trees. Usually the difficulty level & terrain level

should be at a 1 if it is accessible. It is good practice to find the cache beforehand to make sure it is accessible. If there isn't time, checking the discussion board of finders and [www.handicaching.com](http://www.handicaching.com) is a great site that provides more accurate accessibility rating for users.

## **Motivation**

It's frustrating when a cache isn't at the location or a user cannot find it after long periods of searching. For first time geocachers, make sure the cache difficulty is below a 2 and always check to see if the cache is easily found before suggesting it to the client. Finding a cache is fun! Making the find a positive experience is a great start to increasing motivation to find more caches. Going to a path with a lot of quick finds also makes for an exciting day.

## **Intervention Ideas**

Geocaching is adaptable to a variety of focuses and outcomes based on client needs. Group interventions may be a great way to improve teamwork and sharing. As an individual intervention, there may be a variety of outcomes that a Recreational Therapist or other facilitator might want to target. We have provided some quick ideas in the Table below to consider when planning a geocaching intervention. In Section E there are 4 protocols that can be quickly and easily used for sessions. Happy Hunting!



**Table 2. Quick Ideas for Geocaching in Practice**

<b>Area of Focus</b>	<b>Ideas for Intervention</b>
Teamwork/Collaboration	Assigning roles to each individual Using one navigation system Creating a cache
Community Navigation	Assigning caches to find based on areas in the community individual has shown interest Navigating local community map to find geocache
Physical Endurance	Walk along a path with a lot of quick and easy finds
Navigating Terrain	Go on a hike to find geocaches on uneven and challenging terrain
Finding Meaning/Supports	Join a local geocache group/meetup
Following Directions Planning	Allow user to plan out directions with support Plan out geocache outing (what to bring, when to go, time management) Follow directions to geocache
Safety	Process with client various safety needs

## Section E. Session Protocols

### Geocaching Protocol: Poker Run

#### *Description:*

In this intervention, individuals work in groups of 2-5 to seek out five different locations. At each location, there is a cache with individual playing cards sealed in envelopes, not to be opened until teams reach the home point after collecting all five. When all teams collect all five and arrive at the designated home point, teams open envelopes and determine the highest five-card poker hand.

#### *Possible Focus:*

<b>Cognitive</b>	<b>Physical</b>	<b>Social</b>
Novel Experience	Endurance	Self-Exploration
Planning	Stamina	Discussion with many people
Following Directions	Reaching	Communication with others
Sequencing	Gross/fine motor skills	Sharing
Attention	Strength	Turn-taking
Time-management		Team Building
Reading Maps		
Navigation/Wayfinding		
Multitasking		

#### *Group Session:*

Up to 5 teams of 2-5 players

#### *Equipment:*

Therapist Equipment

- Cache container: Pencil box, Tupperware
- Envelopes
- Playing Cards

Consumer Equipment:

- GPS (1 per group minimum) \*If no GPS: map with location marked
- Coded Hint Sheet
- Map

Recommended:

- Sneakers
- Backpack
- Water
- Sunscreen

### *Set up:*

The facilitator will hide playing cards in envelopes at each of the locations. The envelopes should be sealed so that participants cannot look at the card prior to collecting all five. Each location should have enough envelopes for each group to take one. Place the envelopes at each location prior to the start of the group. If you are completing the activity in a public location, you may want to print a note on the envelopes that says what you are doing and to ask strangers who might find the envelopes to leave them.

It may also be helpful to prepare a contact or safety card with important numbers in case participants have an issue while completing the task. In many cases, a staff member may be with the group, in which case, the staff member should have emergency contact information.

### *Safety Considerations:*

Depending on the area, urban or rural, make sure individuals are educated on safety considerations (see Section D). Also be sure to inform participants that no cache is hidden on private property (without permission) and how to answer individuals who aren't familiar with geocaching what it is if people are curious when the team is hunting.

### *Facilitating the intervention: (Identify key steps in facilitating the intervention)*

- Invite participants to group
- Icebreaker
- Introduces what geocaching is
- Split group into groups of 2-5
- Hand out GPS (or Map)
- Educate on GPS & how to work it
- Hand out coded hints with a decoder
  - (Tool or instructions used to decipher the code)
- Process:
  - How will you work together?
  - What roles should there be?
  - Should everyone get a chance at every role?
- Give instructions to teams
- Everyone starts at a different location
- Must find all five envelopes
- Decode hints if teams cannot find cache without
- Do not open envelopes until you are back at the home location and all teams have arrived
- Go over safety considerations for teams together
- Give coded clue handout to all teams
- Clues can be letter switches such as A=T, B=U, etc. or riddles

- Send teams to find caches
- Once all teams have found all five caches in the five separate locations and arrived at the home location with five envelopes, have teams open all envelopes.
- Determine who has the highest 5 card poker hand, they are winners

*Processing the intervention:*

- How did the team work together?
- What was difficult about this activity? How did you work through it?
- Does this happen in life?
- How can we apply these strategies to the real world?
- Did anyone notice any of their group members doing something well?

*Assessment strategies:*

During process, did any individuals identify what they did to overcome challenges during the group? Did they discuss how they could apply it to the real world? How did the team work together?

*Independent Maintenance Strategies:*

If there is a group who seemed to enjoy the geocache activity, educate them on downloading the app and encourage them to go on hunts together or share with their friends.

## Geocaching Protocol: Create A Cache

### *Description:*

In this intervention, either individual or group, can come together to identify a location of a cache that they will maintain. They will determine what kind of cache they will want to hide, what will be in it, what it will be called and if any hints will be provided. After creating the cache, they can hide and log it or the therapist can. Maintenance is required, so make sure someone has ownership and responsibility of the cache. Maintaining the cache could be integrated into an ongoing group and used to orient new participants to Geocaching.

### *Possible Goals:*

<b>Cognitive</b>	<b>Physical</b>	<b>Social</b>
Novel Experience	May require community endurance if placing cache	Self-Exploration
Planning		Discussion with many people
Reading Map		Communication with others
Creative Thinking		Sense of Responsibility/Meaning
Memory		

### *Individual or Group Session:*

1-7 participants

### *Equipment:*

#### Therapist Equipment:

- Map
- Geocaching Account
- GPS/Phone
- \*Cache Container (Determined by group first)

#### Consumer Equipment:

- Whatever trinkets/tradables they want to add to cache
- Geocaching Account if they want to maintain independently

### *Safety Considerations:*

If placing on the facility grounds, make sure there is permission given by facility first.

### *Facilitating the Intervention (Group):*

- Invite participants to group
- Icebreaker
- Introduce what geocaching is
- Determine location of cache
  - Show map of local area
  - Find best spot/area to place cache
  - May want to go to location to explore area to determine best spot to hide
- Determine type of cache
  - Decide what type of cache would be best in this area
  - Will there be trinkets from individuals going in? Determine with group which ones.
- Name cache
  - Think of a creative name, sometimes hints can be in the name that give away location or type of cache.
- Place Cache
  - Walk to area
  - Input coordinates in app to place cache, make sure they are accurate!
- Determine who is Cache Owner
  - Will group take turns with maintenance?
  - Will therapist be in charge of cache?
- Keep track of who finds it
  - Have a board in the facility or group room and track when people find it
  - Check on it occasionally to see if it is still there and if anyone has traded trinkets

### *Facilitating the Intervention (Individual):*

- Teach the individual about geocaching
- Determine location of cache
  - Show map of individuals local community
  - Find best spot/area to place cache
  - Where do they like to go? Is there a hidden park they enjoy?
  - May want to go to location to explore area to determine best spot to hide
- Determine type of cache
  - Decide what type of cache would be best in this area
  - Does individual want to put in their own trinkets
- Name cache
  - Think of a creative name, sometimes hints can be in the name that give away location or type of cache.
- Place Cache
  - Walk to area



- Input coordinates in app to place cache, make sure they are accurate!
- Discuss responsibilities of Cache Owner
  - Checking for maintenance regularly
  - Keep track of who finds it
- Educate individual on how they check who found it (Boards)
  - Check on it occasionally to see if it is still there and if anyone has traded trinkets
  - Educate on how to respond to emails asking for hints or help

*Processing the intervention:*

- This can be a great way to have a sense of ownership and meaning. How will you feel when someone finds it?
- How did you determine location?
- Was it hard to think of a name?
- How did you decide on type of cache?
- Did the whole group decide?

*Assessment strategies/Individual Maintenance:*

Check to see log occasionally to see if CO has maintained cache.

## Geocaching Protocol: Cache Me If You Can

### *Description:*

In this intervention, individuals or groups attempt to find caches along a path to encourage more walking. If there is a local path in the area, there are probably a couple of caches along the way, which may be more a more fun and motivating way to get moving. If there is not a path with caches, place caches beforehand in an area that is walkable, or find an area, like a park that has multiple caches. Another idea is to use a multi-cache that is walkable and a lower difficulty within the area.

\*\*If your plan is to walk 2 miles, 3 caches would be sufficient. Remember to add time in for hunt if there is a time limit to group. 1 mile with 2 caches may take an hour!

### *Possible Focus:*

<b>Cognitive</b>	<b>Physical</b>	<b>Social</b>
Novel Experience	Endurance	Self-Exploration
Planning	Stamina	Discussion with many people
Following Directions	Reaching	Communication with others
Sequencing	Gross/fine motor skills	Sharing
Attention	Strength	Turn-taking
Time-management		Team Building
Reading Maps		
Navigation/Wayfinding		
Multitasking		

### *Group or Individual Session:*

1-4 people

### *Equipment:*

Therapist Equipment:

- Map of Caches to keep track of

Consumer Equipment:

- GPS or Geocache App
- Geocaching Account
- Map

Recommended:

- Sneakers
- Backpack
- Water
- Sunscreen

*Safety Considerations:*

Depending on the area, urban or rural, make sure individuals are educated on safety considerations (see Section D). Also be sure to inform participants that no cache is hidden on private property (without permission) and how to answer individuals who aren't familiar with geocaching what it is if people are curious when they are hunting.

*Facilitating the intervention:*

- Invite participants/individual to session
- Introduce what geocaching is
- Benefits of walking
- Geocaching Orientation
- Hand out GPS or pull up app on phone/tablet
- Educate on GPS/Geocaching & How to work it
  - Where attributes & Hints are
  - Show map of caches
- Goal of walking distance
- May want to keep distance for the end to show how far they ended up walking
- Must find all caches identified by therapist
- Go over safety considerations
- Go find caches!
- Return to home base to process

*Processing the intervention:*

- What was difficult about this activity? How did you work through it?
- Was it easier to walk X amount? Why?
- What else is located X far from your house?
- Is walking easier when you have something else to focus on?

*Assessment strategies:*

During processing, find out if any individuals walked further than they thought they could. Were they able to identify places in their community at that distance? Discuss walking benefits and motivations.

*Independent Maintenance Strategies:*

Identify places they stated was that distance in their community and have them walk there that week. Identify a cache that far from their house and have them attempt to find it.

## Geocaching Protocol: Caching Around the Community

### *Description:*

This is an activity that allows the recreational therapist or other facilitator to identify local community places of interest to the individual and assign them to go to these places on their own. It is recommended that the client has geocached with the recreational therapist before and feels comfortable to geocaching independently.

### *Possible Focus:*

<b>Cognitive</b>	<b>Physical</b>	<b>Social</b>
Multitasking	Endurance	Self-Efficacy
Planning	Stamina	Discussion with Others
Following Directions	Reaching	
Sequencing	Gross/fine motor skills	
Attention	Strength	
Time-management		
Reading Maps		
Navigation/Wayfinding		

### *Group or Individual Session:*

Individual Session

### *Equipment:*

Consumer Equipment:

- Geocaching Account
- Mobile Device or GPS
- Map

### *Safety Considerations:*

Make sure to educate the client on safety considerations of their area. Suggestions in Section D.

### *Facilitating the intervention:*

- Discuss community areas of interest
  - Where are they in your community?
  - How often have you gone?
- Identify Caches in the area
- Find caches in the area near local community places of interest

- If there are none, select caches near parks or community centers
- Make plan on when to find caches
- What happens if they can't find cache
  - Check hints, boards, attributes, photos
  - Email CO
- Explore the area!
- Did you find anything new?
- Go over safety considerations
- Check in with client after designated amount of time to see if they found caches
- Can also check progress on geocache account
- Set goals for independent caching

*Processing the intervention:*

- Were you able to find any caches?
- When you couldn't, what strategies did you use when you couldn't?
- When you did find them, did you explore the area?
- What was challenging? How did you overcome?
- Did you invite anyone to join?

*Independent Maintenance/Assessment Strategies:*

Check app to see if they are finding caches. Check in at designated time to go over caches they found.

## Resources

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