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**Crafts & Games in  
Stroke Rehabilitation**

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**2015 Edition**

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## Crafts & Games in Stroke Rehabilitation

***“Why are you allowing Mr. Smith to make crafts?”***

***“She does not play cards anymore. Why don’t you leave her alone? She just had a stroke a week ago.”***

***“They pay you to play shuffleboard with patients?”***

***“How can we justify spending money on play therapy?”***

Who has asked you these questions? Has it been doctors, nurses, supervisors, students, family members, other health professionals, yourself, or all the above? Each health professional who uses leisure activity to promote independence has his or her own answer to these questions. We here at S&S® have long valued the importance of using leisure activities to promote wellness. We hope this publication will help you justify crafts, games and other leisure activities as an integral part of stroke rehabilitation. These suggested goals and treatments are not an all-inclusive list, but are offered as possible interventions for your stroke rehabilitation planning. Use these interventions to help justify the use of crafts, games and other recreational activities to promote wellness.

**Goal writing:** “Patient will complete a craft project in sixty minutes.” That goal is observable but it does not communicate functional relevance. A goal needs to communicate the functional need being addressed. If your treatment team decided to address endurance, then your goals should address endurance. “STG1: Patient will participate in a valued craft project for 10 minutes while on a bed with feet dangling, using a bedside table with moderate physical assistance by 2 sessions. STG2: Patient will sit in wheelchair and complete a valued craft project with pillows for positioning for 30 minutes at a time in a week.” These goals are obviously relevant to monitoring the patient’s progress in endurance.

**Follow this goal-writing exercise:**

Example: Patient will (select one of the following) \_\_\_\_\_

1. Complete a craft project
2. Participate in a modified sport activity
3. Participate in a board game
4. Write a letter
5. Identify 5 leisure interests

**Then add what you will treat or monitor:**

Example: Patient will complete a craft project (select one of the following)

1. Demonstrating minimum manipulation skills with affected hand.
2. For 20 minutes
3. In her left visual field
4. Rating a 4/10 satisfaction with performance
5. Reporting a 4/10 pain level
6. Utilize grounding or relaxation techniques

**Then add (if relevant) position of patient:**

Example: Patient will complete a craft project demonstrating minimum manipulation skills with affected hand (select one of the following)

1. Side-lying
2. Sitting on a bed with feet dangling
3. In a wheelchair
4. Standing

**Then add level of assistance:**

Example: Patient will complete a craft project demonstrating moderate manipulation skills with affected hand side-lying with (select from the following)

1. Minimum, moderate, maximum or hand-over-hand assistance
2. Demonstrations
3. Minimum, moderate or maximum verbal cues or prompts
4. Materials placed within reach, visual field or in sequential order from left to right.

**Then add time frame:**

Example: Patient will complete a craft project demonstrating minimum manipulation skills with affected hand side-lying with maximum assistance in

1. Two sessions
2. A week
3. A month

**Final Goal:**

Now when someone asks you, "Why are you allowing Mr. Smith to make crafts?" You could possibly answer "His treatment goal is to increase hand function, and to achieve this goal he will complete a craft project demonstrating minimum manipulation skills with his affected hand side-lying with maximum assistance in two sessions."

Once you have justified your role to the treatment team, family, patient and third-party payers, then you need quality crafts, games and activities to achieve the stated goals.

**Case Study 1: Acute Hospital Setting**

History: Patient is a 58-year-old male who suffered a left CVA one week ago, resulting in right hemiparesis. Patient presented with a depressed mood, spastic right upper extremity, non-verbal, decreased cognitive capacity and requiring moderate physical assistance to transfer. Patient uses a wheelchair for mobility and has his right arm in a sling to avoid further subluxation. Treatment team identified depression and attention span as major treatment areas. Family member identified woodworking and bowling as patient's leisure interests.

**Two Short Term Goals:**

1. Patient will participate in a craft activity for 10 minutes, demonstrating brighter affect while seated in a wheelchair with moderate verbal cues and physical assistance by 2 sessions.
2. Patient will complete 1-2 simple craft activities communicating increased satisfaction with his performance while seated at a table with right arm on table for support. Patient will attend to activity for 20-minute sessions with minimum verbal cues and physical assistance in one week.

**Treatment Plan:**

A skilled therapist will treat patient individually and/or in small groups for 1-2 sessions daily to monitor and promote brighter affect and increased attention span for one week.

**Progress Notes:**

**Session 1:** Patient was presented a simple wood project (three-legged stool) while seated in a wheelchair. Patient required maximum prompts to engage in activity. Patient attended to sanding wood for 10 minutes with periods of bright affect as evident by facial expression and eye contact. Patient placed affected arm on table for support.

**Session 2:** With materials placed in sequential order, patient completed sanding

and staining of wood project for 30 minutes in a supported seated position in a small group with minimum prompts and physical assistance. Patient used his affected arm to hold wood while staining. Patient gestured to other patients when requesting materials.

**Session 3:** Patient participated in valued sports activity in wheelchair for 45 minutes. Patient used adaptive bowling device (Bowling Ramp) with setup and minimum prompts to engage in bowling activity. Patient displayed bright affect at times when he made a spare or strike. Patient achieved short-term goals. Treatment team has decided to discharge patient to rehabilitation hospital.

**Summary:** Various health specialists can use crafts and games in acute stroke rehabilitation.

1. *Occupational therapy* can utilize these valued purposeful activities to assess and promote functioning.
2. *Recreational therapy* can utilize these chosen leisure interests to increase patient's quality of life and to divert attention from pain or loss of function.
3. *Speech and language therapy* can use crafts to stimulate verbal communication and social interaction.
4. *Physical therapy* can use an adaptive sports device to treat mobility and stability.
5. *Art therapy* can utilize crafts to assess a person's mood and perspective.
6. *Nursing* can utilize leisure activities to promote and increase daily activity.

## ***Adaptive Sporting Equipment, Primelife® Catalog***

<b>Sport</b>	<b>Possible Patient Positions</b>	<b>Sporting Equipment</b>	<b>Product Number</b>
Bowling	Seated/Standing	Bowling Ramp	10291
Dart Ball	Seated/Standing	Velcro® Dart Ball	W9343
Basketball	Seated	Floor Basketball	GA2032
Toss Games	Seated/Standing	Velcro Target Toss	W10702
Toss Games	Textured Beanbags	Beanbags	18098

## Part II: Out-Patient Stroke Rehabilitation

### Motivating the Higher-Level Patient

By: Sheryl Goldman, COTA

Challenged in my rehabilitation efforts with high-level stroke out-patients, the use of craft activities became an integral part of each patient's hospital treatment plan and home program. Covering a span of 35-75 years of age, the following patients were living full lives and engaged in complex activities prior to the onset of their stroke. Although their functional mobility, gross and fine motor skills, and ADL abilities returned to independent, the more subtle areas of cognition, perception, sensory impairment and bilateral integration interfered with their performance of more complex tasks and community involvement. Their rate of performance and quality of movement was diminished and the full vitality of life which they had always enjoyed was flattened and reduced to simple self-care and rote survival skills.

For a 35-year-old college student, a 45-year-old CEO who used a computer, golfed, sailed and played piano, a 55-year-old concert violinist and a brilliant, 75-year-old book collector, the conventional treatment tools of cones, blocks and pegs had clearly outgrown their usefulness. Traditional treatment failed to provide the necessary challenge that the multifaceted retraining of their neuromuscular systems now demanded. The use of complex crafts and leisure pursuits enabled the rehabilitation process to continue where it may have otherwise ended.

### Five Recommended Activities for Higher-Level Patients

High-level stroke patients need an "advanced clinic" to restore their full potential. The following five activities were successfully utilized in treating the patients described above and are recommended as a good starting point in treating higher-level stroke patients.

#### A. Activities List

- 1) Macramé
- 2) Plastic Canvas (enlarged needlepoint)
- 3) Sculpey® Clay
- 4) Woodwork

#### B. Treatment Goals for the Activities Listed

##### • Bilateral Integration

A complex series of motions using both extremities while combining fine and gross motor components, coordination and motor planning.

##### • Visual/Perceptual

To reorganize scan path and broaden the visual field while reinforcing with a sensory motor experience, neglect.

##### • Sensory Impairment

Proprioception, kinesthesia, pressure sense and visual compensation.

##### • Cognition

Attention span, follow-through, problem identification, memory, sequencing, planning, time management and abstracting.

##### • Quality of Movement/Rate of Performance

Precision and smoothness of motion, complexity, ability to increase rate of performance without compromising quality and ability to anticipate.

<i><b>Clinical Picture</b></i>	<i><b>Craft/Activity Intervention</b></i>	<i><b>Functional Relevance</b></i>
<p>Patient has difficulty using mechanical objects, fatigues when integrating fine and gross motor motions. Deficit: Decreased coordination, decreased endurance.</p>	<p>MACRAMÉ: Requires complex series of fine and gross motor movements to maneuver cords while holding and placing arms and applying subtle, consistent force to tie knots. Cognitive skills also challenged.</p>	<p>Increase patient's ability to use hands while arms are at 90 degree angle. For example: to raise and lower mini-blinds, handwash clothing, write on blackboard, clean windows and tie knots. (In previous patient's case, to maneuver sails for sailing).</p>
<i><b>Clinical Picture</b></i>	<i><b>Craft/Activity Intervention</b></i>	<i><b>Functional Relevance</b></i>
<p>Patient walks past doorways on (L) side, begins reading in center of page, spreads butter on (R) portion of bread only. Deficit: (L) Neglect or hemianopsia.</p>	<p>PLASTIC CANVAS: Requires patient to search (L) field of vision to complete task (center task at midline to complete).</p>	<p>Patient will learn to scan to the (L) side and therefore decrease percentage of objects missed in that field. This skill is critical for safety, mobility and driving.</p>
<i><b>Clinical Picture</b></i>	<i><b>Craft/Activity Intervention</b></i>	<i><b>Functional Relevance</b></i>
<p>Patient drops objects, wrinkles paper. Deficit: Decreased sensation.</p>	<p>SCULPEY® CLAY: Provides patient visual feedback through finger impressions on clay, with regard to how much pressure is applied by the hand.</p>	<p>Patient learns through sensory, motor and visual experience how to monitor pressure of grasp, thus resulting in decreased frequency of dropped objects.</p>
<i><b>Clinical Picture</b></i>	<i><b>Craft/Activity Intervention</b></i>	<i><b>Functional Relevance</b></i>
<p>Patient forgets the steps in a task. For example: forgets to turn on oven, put food back in fridge, put on emergency brake. Patient works hastily and is unable to identify errors. Deficit: Decreased cognitive skills.</p>	<p>WOODWORKING: Task requires following written directions, attention span, systematic problem identification and solving, memory, sequencing and following through.</p>	<p>To decrease safety hazard to self or others. To increase safety in domestic duties such as cooking and use of electronic equipment. To increase safety and quality of performance in driving a car.</p>
<i><b>Clinical Picture</b></i>	<i><b>Craft/Activity Intervention</b></i>	<i><b>Functional Relevance</b></i>
<p>Patient makes many typing errors, slow using computer, brakes late at stop sign, has difficulty with coordination and response time. Deficit: Decreased quality of movement, decreased rate of performance, decreased anticipatory skills.</p>	<p>XYLOPIPE: Like typing, this musical instrument will challenge the patient's precision and dexterity. The added element of audio feedback enhances the challenge by including factors of rhythm and keeping time. Addresses rate of performance and anticipation.</p>	<p>To increase accuracy, rate of performance and reaction time for improved typing, driving, engaging in sports and video games. Increase safety by increasing anticipatory skills and quality of movement.</p>

## Documentation

Objective and measurable documentation of patient progress is critical to clear communication with physicians and other staff. It is also essential to ensure reimbursement from Medicare and other third-party payers. To aid in documentation, refer to the “Clinical Picture” and “Functional Relevance” columns when charting progress on the five activities listed above, as well as the Treatment Goals listed in Part I.

Proper documentation makes it clear that craft activities are not “diversional,” but functionally relevant in improving deficit areas. Documenting to functional relevance as related to patients’ prior level of function is valuable information for the treatment staff and allows your treatment to qualify for reimbursement.

Documentation can be made even more comprehensive by incorporating a percentage system to quantify progress. Used as a concrete measure of progress, percentages can demonstrate changes in:

- (1) amount of therapist assist required
- (2) amount of therapist setup required
- (3) level of patient independence
- (4) duration of time working in each position
- (5) rate of performance, or amount completed in one session
- (6) position or time spent seated/standing
- (7) position or height of project, height of patient’s arms

In setting up a woodworking project, for example, a second session could be compared to a first session by noting: 25% decrease in level of assistance required, 50% decrease in verbal cuing required, 50% increase in rate of performance.

## Conclusion

As therapists, we have the power, authority and expertise to create and adapt a learning environment to meet the needs of our patients. Crafts assist in creating an interesting and challenging environment that both lower and higher-level stroke patients can respond to and benefit from.

We encourage you to experiment with the activities listed in this handout, and to likewise encourage your patients to pursue crafts and leisure interests at home and after discharge. Classes such as piano, typing, ceramics, watercolor, ballet, yoga and square dancing can also serve as wonderful motivators.

The use of arts and crafts is fun and creative for both the patient and the therapist. Unstructured art activities like T-shirt painting, and structured craft activities such as tile and Stain-A-Frame projects, can all be incorporated into stroke rehabilitation, even with the lower-level patient. Higher-level patients naturally allow for a wider range of craft exploration. Arts and crafts activities can eventually become an essential part of daily living as leisure time often increases after a disability. Rehabilitation is commonly a lifelong process. Helping the stroke patient learn to adapt and use free time constructively is vitally important to the treatment process, and prepares the patient for a better quality of life after the clinical portion has ended.

## ***Additional Suggested Craft Projects: Reference Index***

<b>Complexity</b>	<b>Adaptive Device</b>	<b>Product Number</b>	<b>Craft Project</b>
Simple	Dycem®	PE1724	Greeting Cards & Envelopes
Simple	Dycem®	WD943	Triple Heart Rack
Simple	None	PP1	Decorative Mats
Easy	None	SG713	Stain-A-Frames
Easy	Dycem®	TT679	Tile Trivets



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