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## Using Creative Making to Redesign Life After Stroke

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## Using Creative Making to Redesign Life After Stroke

### Abstract

Kate Davies, a knitwear designer and author based in Scotland, provided the cover art for the Winter 2022 edition of the *Open Journal of Occupational Therapy*. "Balance for Better" is a blanket made from wool and mohair. The blanket consists of 30 individual squares designed and knitted by KDD & Co. employees. The colors and pattern of each square reflect the work, achievements, and legacy of the inspirational women celebrated in the blanket. At age 36, Kate suffered a near-fatal stroke that left her paralyzed on the left side of her body. Forced to give up her career as an academic lecturer, she used the meaningful occupation of knitting to create a new path. Through knitting, Kate redesigned her life.

### Keywords

occupation, occupational therapy, knitting, knitwear design, stroke, brain injury, Kate Davies

### Credentials Display

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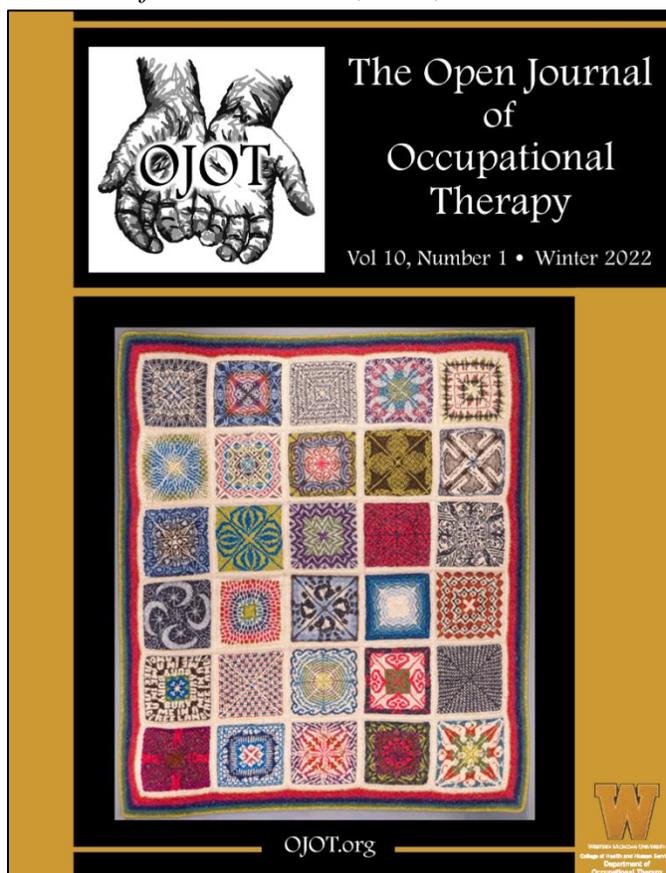
As a child, Kate Davies understood that making things mattered. When she had an idea but lacked the skills to execute it, Kate taught herself. If the needed materials were not available, Kate improvised. Making things brought her ideas to life. To Kate, making a thing is an act of meaning. Inspired by her father, mother, and grandmother, Kate was encouraged to pursue her ideas and be her own person (Davies, 2018). In her book, *Handywoman*, Kate credits her handmade childhood, and the three pairs of hands behind it, for making her the person she is today (Davies, 2018). She writes, “What I learned from them is something I did not need my university education to discover: that limited resources do not mean poverty of aspiration” (p. 39). After a near-fatal stroke severely diminished Kate’s neurological and physical resources, she turned to creative making for motivation. Making things brought meaning to Kate’s life.

Kate Davies, a knitwear designer and author based in Scotland, provided the cover art for the Winter 2022 edition of the *Open Journal of Occupational Therapy* (OJOT). “Balance for Better” is a blanket made from wool and mohair. The blanket consists of 30 individual squares designed and knitted by KDD & Co. employees. The colors and pattern of each square reflect the work, achievements, and legacy of the inspirational women celebrated in the blanket. At age 36, Kate suffered a near-fatal stroke that left her paralyzed on the left side of her body. Forced to give up her career as an academic lecturer, she used the meaningful occupation of knitting to create a new path. Through knitting, Kate redesigned her life.

Kate Davies was raised in the town of Rochdale, in Greater Manchester England. She grew up surrounded by people who were always making things. Kate’s father was a jazz musician with a kind heart and keen sense of humor. Kate’s mother was an occupational therapist and talented seamstress who lived for jumble sales. The family home was dynamic. Kate’s parents were experts at using found objects and repurposed materials to make things such as decorative murals, elaborate costumes, and interior home modifications. As children, Kate and her sister Helen wore handmade clothing knitted by their grandmother. Kate was fascinated by her grandmother’s ability to make things. She often imitated her grandmother’s hand movements. “I sat in front of her, while she knitted, and pretended to knit myself, my hands dashing about uselessly above a pair of imaginary needles” (Davies, 2018, p. 21). When Kate was six, she asked her grandmother to teach her how to knit. Her grandmother made knitting look easy; however, Kate’s skill did not come naturally. “Round and over, through and off,” her grandmother carefully instructed as Kate worked the yarn between her knitting needles (p. 21). Determined to make things, Kate knitted on.

**Figure 1**

Cover Art for *OJOT Vol 10, No 1, Winter 2022*



In addition to making things, Kate was passionate about reading. As a child, she read every book on the shelf at home and in the school library. At the age of nine, Kate knew she wanted to study literature and become an academic. At York University, she earned a Ph.D. in eighteenth-century history. At age 24, Kate was appointed to her first academic position as a lecturer at the University of Sheffield. Over the next decade, she taught eighteenth-century literature at three universities. Kate wrote books, published research, and received several awards. Although she was passionate about the scholarly aspects of her role, Kate was unhappy. Her job was demanding, and the workload was overwhelming. Kate dreamed of working part-time to allow more time for research, writing, knitting, and pattern writing (Davies, 2015).

In 2005, Kate joined a weekly knitting group at a local yarn shop. Surrounded by a group of supportive women with a shared interest in making things, Kate quickly became obsessed with knitting. Kate found it easy to talk to the other women because they all shared a common language. The group also provided a safe space for Kate. She writes, “I felt increasingly suffocated by my daily working life; but here, in this group, in the shop with its old bay window and painted walls, it seemed like I could breathe” (Davies, 2018, p. 170). A study by Adey (2018) identified several benefits of knitting, including distraction from worry, engagement in the problem-solving process, and a sense of autonomy. In 2007, Kate started an online blog to document her knitting projects. Over time, the blog evolved into a space to share her writing about history, textile design, and all things knitting. Soon Kate combined pattern design with digital technology and began designing and selling her knitwear patterns. “Betty Mouat” (see Figure 2) is a cowl scarf knitted from a traditional Shetland cockleshell lace pattern. Through this labor of love, Kate established a global knitting community.

**Figure 2**

“Betty Mouat” (2012) by KDD & Co.



The winter of 2009 was particularly challenging for Kate. Since her teenage years, she had suffered from seasonal affective disorder (SAD), a type of depression made worse by the changing seasons. Kate’s depression was intensified by job-related stress, lack of sleep, and a micromanaging colleague. Her mental and physical health deteriorated. Kate’s weight dropped to 90 pounds. She developed severe depression, paranoia, and suicidal ideation (Davies, 2015). At the request of her doctor and partner, Tom, Kate took some time off from work to focus on her mental and physical health.

In January of 2010, Kate returned to work and the stress associated with the university. On February 1st, she had a stroke. That day began like any other; however, the events that unfolded during Kate’s morning commute were far from ordinary. As Kate walked to Waverley train station, she was unaware of the hole between the chambers of her heart, a condition known as patent foramen ovale. In approximately 75% of newborns, the foramen ovale closes immediately after birth (American Heart Association, 2021). A patent foramen ovale is a hole that remains open, allowing blood from the right atrium to leak into the left atrium. Because of a lack of symptoms, most people do not realize they have it. On that cold February morning, Kate was also unaware that two ordinary blood clots had formed in her leg. The human body has the ability to break down small blood clots that travel through the right atrium

into the lungs. For people with a patent foramen ovale, problems arise when blood clots pass into the left atrium and travel to the brain (American Heart Association, 2021).

When Kate arrived at the train station, her thoughts were consumed by the difficult colleague she was scheduled to meet with that day. Although Kate's blood pressure had always run on the low side of normal, the stressful thoughts running through her head caused a sudden spike (Davies, 2015). The increase in pressure allowed two blood clots to pass through the hole in Kate's heart, blocking the blood flow to her brain and triggering an ischemic stroke. Kate describes this feeling as a gun going off inside her head (Davies, 2018). She recalls her thoughts in the moments immediately after the stroke:

You seem to have somehow folded up and landed, your body bent and useless. Ah yes, you think, something has just gone wrong. Your right arm and shoulder are uncomfortably twisted, you sense that you can move your right leg and foot, but the rest is a strange absence. Down here on the ground, it is very cold. Something has just gone wrong. (Davies, 2018, p. 44)

A crowd formed around Kate. Some people tried to help. Others removed their coats to shelter her until the ambulance arrived. Kate struggled to speak. Lying there on the cold ground, she was dependent on the kindness of strangers. At the hospital, Kate received a computed tomography (CT) scan. The doctor was unable to find any brain abnormalities based on the images. After reviewing Kate's medical history, which included a recent psychiatric diagnosis, he concluded her body had converted psychological stress into a physical reaction (e.g., paralysis). Kate was misdiagnosed with conversion disorder. People with this condition often experience symptoms that cannot be explained by illness or injury (O'Neal & Baslet, 2018). The symptoms of conversion disorder are often understood as the body's reaction to stress. The doctor's advice was to address the source of her stress to start feeling better (Davies, 2018). In other words, the problem was all in her head. Kate did not receive any further testing or treatment that day. She was certain the diagnosis was wrong.

The next day, Kate's neurological exam identified signs of clonus, a neurologic condition that results in unintentional muscle contractions (Alves et al., 2013). After a stroke, clonus is present when the motor neurons in the brain are damaged. The findings of Kate's exam validated the need for an MRI, which confirmed she had a stroke. The injury occurred in the motor cortex of the right temporal lobe. This region of the brain is responsible for planning and initiating controlled voluntary movements. Kate's limitations were both visible and invisible. The most visible was left-sided hemiparesis. Kate was unable to move her limbs on the left side of her body. The invisible limitations included vertigo and sensory impairment. Kate constantly felt dizzy. She was unable to focus on objects and had difficulty differentiating between noises in the foreground and background (Davies, 2018). Kate's sense of smell was heightened tremendously. While sensation remained in her upper extremity, Kate could no longer feel the toes on her left foot. She experienced emotional lability with uncontrollable fits of laughing. In Kate's newly disabled body, fatigue was all-consuming. Everyday tasks, such as maintaining seated balance, required an inordinate amount of energy.

Kate spent 8 weeks in the brain injury ward at Astley Ainslie Hospital in Edinburgh, Scotland. Her days were filled with therapy sessions, assessments, and activities of daily living. Kate's occupational therapist stressed the importance of incorporating her left arm into daily activities. This was necessary to help her brain discover new pathways and regain motor function. When Kate was not scheduled for therapy or assessments, she focused on rehabilitating her left hand. Her routine included visualizing her hand engaged in functional tasks, stretching, deep tissue massage, closing the left hand around objects,

and dragging her fingertips across various textures. One morning as Kate dressed, there was a flicker of movement in her thumb. She writes, “I realize the hand needs an objective, it needs to *want* to do something,” (Davies, 2018, p. 71). Kate and her partner, Tom, searched for activities that would motivate her limbs into action.

Kate slowly regained movement in her left arm. Finger flexion came back before extension. She used a compensatory tenodesis grasp to facilitate opening her fingers. It took time and practice for Kate’s hand to learn how to release objects. There were many times when her arm took on a mind of its own. Having the hand’s position and activity at the forefront of Kate’s mind was necessary to prevent it from making its own decisions (Davies, 2018). With the learning of each motor movement came an unpleasant physical sensation. Kate describes it as the feeling you get before a roller coaster plummets downward (Davies, 2018). Six weeks into recovery, the strength and coordination in Kate’s left limbs were significantly decreased. Because of an irregular gait, Kate required specialized equipment to walk, including a forearm crutch and ankle-foot orthosis to prevent foot drop. It was 5 months before Kate’s left arm would learn to swing opposite of her right leg when walking (see Figure 3). This was very frustrating for Kate, considering she had always loved to spend time outdoors exploring on foot.

Although Kate was unable to knit during the early stages of her recovery, she viewed her knitting bag as a container full of potential (Davies, 2018). Kate incorporated a small metal tin filled with findings (i.e., small objects and tools used to complete projects) into her daily exercises for hand dexterity. For example, Kate placed a button on the table and demonstrated how to pick it up with her right hand. She carefully observed each motor movement and committed it to memory prior to attempting it with her left hand. Kate believes using meaningful objects in therapy played a significant role in her early recovery. She writes, “Through my findings, I familiarized myself with these components and began to teach myself the precise movements that I would need to be a maker once again,” (Davies, 2018, p. 79). Making things was meaningful to Kate. Research has shown using crafts as therapy promotes skill development, relieves stress, and provides psychosocial benefits (Gutman & Schindler, 2007; Leenerts & Evetts, 2016). Knitting was an act of meaning that would empower Kate to rehabilitate her brain, body, and identity.

After the stroke, Kate resigned from her job as an academic lecturer to focus solely on knitwear design. In 2010, she founded KDD & Co. to sell digital knitwear patterns, yarn, and books for hand knitters. The inspiration for her designs comes from her love of Scotland’s rich history. For example, Kate has designed several patterns for a traditional Scottish shawl known as a “hap.” “The Observatory” (see Figure 4) is a cowslip hap with Shetland lace edgings. Through Kate’s patterns, haps are now being

**Figure 3**

*Photo of Kate Davies Walking near Edinburgh, Scotland (2010) by KDD & Co.*



recreated by knitters around the world. In 2017, Kate partnered with Donegal Yarn to make yarn specifically for her designs. She sells patterns, yarn, and books on KDD & Co.'s website. Kate's knitwear patterns are available in digital format or paired with a knitting kit. In addition, the KDD & Co. website also provides access to helpful video tutorials; the sock of the week; and "My Place," a project where designers use knitting to explore their place in the world. In 2019, KDD & Co. received the Scottish Business and Product Innovation Award and the International Women's Day Award for Best Practice.

In 2014, Kate combined her skills and interests to found a small publishing company known as Makadu Press. To date, her company has published 20 books. Eight of these books were authored by Kate. The newest book, *Bluestockings*, explores the history of sock and stocking knitting through the lives of eighteenth-century women writers. "Elizabeth Montagu" (see Figure 5) is a pair of knitted stockings made from wool and mohair. All of Kate's knitwear pattern books include thoughtful essays and Tom's beautiful photography. Running a small publishing company affords her opportunities to engage in research and writing, but with more creative freedom (Davies, 2015). Unlike publishing in

academia, Kate maintains control of the entire process. She finds pleasure in all aspects of book making, including forming the initial idea, writing, designing, knitting, and production (Davies, 2015). In 2020, Kate developed a publishing model called MAKE/MARK to help other talented knitwear designers publish their first book. In her book *Wheesht*, she writes, "Might the best work of a creative individual be to support, to encourage and to elevate the work of others, rather than to continually centre oneself?" (Davies, 2019, p. 155). For Kate, supporting others is a meaningful form of creative self-expression.

Kate recognizes that her stroke may have been unavoidable; however, she finds significance in the fact that it occurred when her mental and physical health were poor (Davies, 2015). Through this experience, she learned the two cannot be separated. After the stroke, Kate took steps to address the needs of her mind and body. She vowed to never again participate in a toxic work environment and has no regrets about leaving academia. In 2010, Kate had surgery to close the hole in her heart. The procedure reduced the risk (and alleviated Kate's fear) of having another stroke. Although neurological fatigue and left-sided weakness remain, Kate continues to make progress. Her keys to staying healthy include movement and rest (Davies, 2018). Kate follows a regular schedule that includes walking several miles each day and getting 9 hr of sleep at night. Brain injury has increased Kate's desire to make things (see Figure 6). She

**Figure 4**  
"The Observatory" (2020) by KDD & Co.



**Figure 5**  
"Elizabeth Montagu" (2021) by KDD & Co.



writes, “For I have had the privilege of observing how the brain makes something out of nothing” (Davies, 2018, p. 255).

For Kate Davies, making a thing is an act of meaning. After a near-fatal stroke left Kate paralyzed on the left side of her body, meaningful activities motivated her limbs to relearn the movements required to become a maker again. The meaningful occupation of knitting helped Kate defy her circumstances. Over the last decade, Kate’s achievements have been nothing short of extraordinary. Making things will always bring meaning to Kate’s life. She embraces her disability

as a creative resource. Kate writes, “As a disabled person, I’m powerfully aware of the fact that because my body has to be resourceful and adaptive it is also necessarily, in and of itself, creative” (Davies, 2019, p. 12). Over the past decade, Kate’s creative achievements have been nothing short of extraordinary.

**Figure 6**

*Photo of Kate Davies (2021) by KDD & Co.*



**View more of Kate Davies’ knitwear designs in the [OJOT gallery!](#)**

**Visit the KDD & Co. Website:** <https://kddandco.com/>

**Read Kate’s Blog:** <https://kddandco.com/tag/blogging/>

**View Kate’s TEDx Talk – Handywoman: Making a Creative Life:**

[https://www.youtube.com/watch?v=HPlawa\\_pIMY&feature=emb\\_logo](https://www.youtube.com/watch?v=HPlawa_pIMY&feature=emb_logo)

**Learn how KDD & Co.’s Milarochy Tweed yarn is made:**

<https://kddandco.com/2017/11/04/making-milarochy-tweed-part-1/>

**Learn about the women who inspired the Balance for Better Blanket:**

<https://www.balanceforbetterblanket.com/>

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