

Sit or squat? Lessons from other cultures

by Vicki Harding

From my travels around the world in connection with attending and contributing to numerous international physiotherapy and pain symposia, I have noticed that the practice in some cultures of squatting rather than sitting just might have real health benefits...

In 1999 I was invited to contribute to a WCPT Congress in Yokohama, Japan. This was my third visit to Japan, and although Yokohama is far from a typical Japanese city, I opted to use the Japanese 'Homestay' facility, so that I could stay (very cheaply) with a family in an older and more residential area rather than in an uninteresting international hotel way outside my budget. I also spent the week before Congress staying with friends in the rice growing area east of Tokyo, and in Tokyo itself.

My first visit to Japan was in 1986 and quite different for several memorable reasons. All the friends I stayed with tended to sleep on tatami mats on the floor, and sit on the floor at small very low tables. Those who had travelled abroad had encountered European loos, but they all used traditional Japanese sanitary ware at home or in public conveniences which were like Arabic loos: a sort of shallow bidet-like device set into the floor over which one squatted and flushed with a neat and hygienic foot pedal (incidentally not getting your feet wet as one tends to with the old French 2-footprint hole in the floor jobs!).

On that visit in 1986, when a friend called Noriko and I visited her 70-year old mother out in the country, I became acutely embarrassed when her mother greeted me by squatting, going forwards onto her knees, then bowing to me with her forehead on the floor, even though, as I knew, she had rheumatoid arthritis. Noriko had to quickly reassure me that this was usual and easy for her mother, and was in my honour.

For much of the day, Noriko's mother waited on the two of us, much of this requiring her to squat down to serve us tea or food, to clear it away, or bring us things for Noriko to show me while we sat on the floor at a low table. I'd already been in Japan for 2 weeks but was finding it rather uncomfortable so had to frequently change my position from sitting cross-legged, side-sitting to right and left, then to kneeling and sitting back on my heels. I also felt uncomfortable about having an elderly lady squat down and get up on my behalf. "Can I do something?" "Can I help?" "Is she OK?" I asked Noriko. "Don't worry, it's OK; I wait on her friends when they visit".

The next day we went climbing up in the mountains to see some very old shrines and a massive statue of Buddha in the forest. To my amazement and chagrin, I was overtaken by some Japanese women who looked virtually a hundred years old yet scrambled quickly up extremely steep paths criss-crossed by roots and with overhanging branches. They used a long stick each, but were clearly fitter than me despite being nearly bent double, and having knees with the most extreme varus deformities.

I'd commented to Noriko that they had such grossly bowed legs, yet were like mountain goats. "All Japanese are born with ugly legs" she said. "We call them 'Oh' legs as they are like our symbol Oh" and she drew a symbol in the air like a pair of very bowed legs. "These women are locals who are used to climbing, but we all have strong legs. We're up and down from the floor nearly all the time, especially the women".

As part of my trip, I visited a Rehabilitation Centre in Kanagawa Prefecture. I gave a talk on early mobilisation of acute fractures and soft tissue injuries which received rather a quizzical reception, as what I was describing was the complete opposite of the standard English textbooks on the subject (which in those days were all along the lines of rest, brace and fixate.)

I didn't get the challenges or questions I expected: the Japanese are far too polite! I should perhaps have learnt from this, but I was so excited by my experiences in Japan, I couldn't help asking many questions myself when they kindly showed me around the rehab centre. I saw many stroke victims and some amputations, however, what really struck me was the comparatively little disability from arthritis that I saw, and very few patients receiving any treatment for back pain.

The director who showed me around and I who had known from the Nippon Medical Centre in London, confirmed that the Japanese did have back pain and arthritis, but the physios in outpatients did not seem to see the quantities of patients and the disability that I experienced in the UK. The patients I saw being treated tended to be those with severe deformity and pathology.

Returning to the UK after my visit I wondered - with my stronger legs and more supple back, knees, ankles and hips - whether lifestyle as well as expectation played a part in this.

In 1991, WCPT Congress was in London. There were many interesting papers, but one that fascinated me was by LT Gatsi from Zimbabwe. It was entitled "Biomechanical measurement of Squatting" and included slides of Africans but also Indians and Arabs squatting. Apparently this is one of the commonest modes of sitting down in the 3rd world and they use it for most working and resting activities. He explained and gave references for the fact that we are born with 'squatting facets' on the lower tibiae that match those on each talus (Charles 1893, Thompson 1889). People who squat retain them, Westerners don't, though this is only the case for modern Westerners. Apparently, the stone-age skeleton named Cheddar Gorge Man (as his remains were found in the caves there) exhibits squatting facets.

I had been fascinated with the concept of squatting – apart from the fact that I couldn't do it – well certainly not with my feet flat on the floor! – and determined that I would not only try to achieve it, but experiment with this with patients with patella and knee problems. I had already decided that limiting people to NWB exercises for knees with effusions as was traditional was wrong – I couldn't see the sense in it and found swelling went down far faster by encouraging stair climbing - and based on Goodfellow's work with the patella (he found arthritis was usually limited to the odd facet – the part of the knee cap cartilage only compressed and used when the knee flexed to at least 135°, and therefore a disuse problem, not a 'wear and tear' problem) wondered if squatting would be a 'cure' for these conditions.

My visit to Japan in 1999 certainly contributed to convincing me that this was so. On my latest visit I discovered that all my friends had gone out and bought Western furniture. They now sat at tables of a height we are used to with western type chairs, and sat on sofas to watch TV and relax in the evening. My friends were now all complaining of backache, and the older ones of arthritis in their legs. When we went out to traditional Japanese restaurants and sat on the floor, they complained nearly as much as me!

The only exception was Noriko who now has the rheumatoid arthritis that her mother has, even though it is very rare for the Japanese. When her knees swell and get painful, she showed me how she folds herself up into a squat like a deck chair, then goes repeatedly up and down, up and down, until she says "Ah, that feels better!" Equally, the Japanese loos which I had been looking forward to using again were now replaced with western ones (though with push buttons and lights that gave you a wash, brush up and warm hair-dry underneath if you pressed the right ones!).

I remembered the Australian physio Pauline Chiarelli who explained to me that our colon does a U-bend before going into the rectum, and that squatting to 'go' helps straighten out our U-bend, whereas us westerners using our sit-on loos ... (she used more colourful language involving *****ing up-hill which I won't repeat!) Sounds like the Japanese are going to pick up piles and constipation from our western habits as well as backache and arthritis...

My enthusiastic obsessions have clearly overflowed into our pain management programme. The Occupational Therapists all make sure that patient's goals that in any way might ever include squatting as a building block, do so, and anyone who complains of constipation is invited to try 'going' in a different way – as well as coming off their pain medication, shaking it all about in the physio sessions, and getting the standard plug for more fruit, veg, fibre and water.

What is the result? I wish we had done a randomised controlled trial. Sadly, to date we haven't done any systematic studies. All I can report is anecdotal evidence that we have had no serious problems from including squatting practice and encouraging patients to use the floor much more, and I would say that many are amazed at how much their knees and backs improve – some quite rapidly, some in the longer term with practice – when they keep it up! We try to think of everyday activities that use squatting: putting the video on the floor and programming it directly rather than through the zapper; playing with grandchildren, the dog, the cat etc. on the floor; placing all the most used files in the bottom drawer of the filing cabinet (on the other side of the room too to encourage more movement!). Maybe you can think of some more...

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