

Extended Abstract

A Case Study: Short-Term Effects of Horseback Riding Therapy on Improving Activities of Daily Living in Stroke Patient

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Abstract

Background: Strokes occur when the blood supply to an element of the brain is brought to an end so certain functions (such as seeing, moving hands and feet, or talking), won't function as they ought to. Activities of daily living (ADLs) are daily household-based activities that individuals perform to keep up health and well-being. ADLs include eating, moving, grooming, etc. When a stroke changes how body parts or functions work, then the power to hold out ADLs can become affected. Horseback riding may be a sunnah sport. The development of horses in Indonesia began since the founding of the Hindu and Buddhist kingdoms in the 17th century AD. These kingdoms have a strong maritime fleet that accelerates efforts to develop and spread horses throughout Indonesia from Java to Sulawesi, even to other small islands. In several of Indonesia's regions, during the royal era, horses were used by farmers in addition to buffalo in general. Horses live close enough to farmers. Horsing acting as a tool to attract rice plows and also as a means of transportation. The same is the case with other countries. The history of horse riding in Indonesia records that the horse used as a tool for hunting in the forests by the people of Southeast, and East Nusa Tenggara. And in the 16th century in Java, horses were a symbol of the majesty of kingdoms driven for warfare until their development shifted to a sporting spectacle. The development of horse riding in Indonesia was inseparable from the role of the Dutch during the colonial period. Where at that time, it often held horse racing on market days and birthdays of the queen of the Netherlands. Many areas that are also involved in horse racing activities are still on last until now. It likes traditional racing in Gayo, Aceh, and West Nusa Tenggara. Sports expertise in horse riding became known when Dutch troops began routinely holding a horse jumping competition. Now, the trend of horsing in Indonesia is already shifting to the medication beneficial use. Equestrian sport as a therapeutic tool has been researched for therapy with some form of cerebral palsy (CP),¹ Down syndrome (DS),² multiple cases of sclerosis (MS),³ spina bifida,⁴ spinal cord injury (SCI),⁵ traumatic brain injury (TBI),⁶ autism spectrum disorder, intellectual

disabilities, and developmental delay.⁷ In this research, we study the goal of horseback riding therapy to boost the ability to hold out ADLs. Purpose: To understand the effect of short-term horseback riding therapy on improving activities of daily living in a stroke patient.

Methods: Before the treatment, the patient should do some warming up exercises in about 15-20 minutes. The treatment sessions, patient maintain a sitting position on the horse. The therapist helped the patient be safe from the patient pelvis and holding the saddle. The Interview was done after the treatment session to assess the level of ADLs by the Barthel Index Score (BIS). The Barthel includes ten personal activities: feeding, bathing, personal toileting, controlling the bladder, dressing and undressing, moving from wheelchair to bed and returning, elderly and off a bathroom, controlling bowel, walking on a level surface (or propelling a wheelchair if unable to walk) also do ascending and descending stairs. Result: A lady, 60 y.o with stroke, the BIS was 30 before the treatment, which indicates very dependent. After per week of half-hour horseback riding therapy, the BIS until 80 that indicates totally independent.

Conclusion: The horseback riding therapy was effective in improving the ADLs in a stroke patient. The mechanism of therapy is the Moreover, horseback riding showed an analogous effect for improving lower limb function because it did for upper limb function. Horseback riding provides extensive body-to-body contact⁸. A horse's body temperature is 1-2°F hotter than human temperature, causing a decrease in muscle flexibility and hypertonicity.⁹ Using saddle pads instead of saddles allows heat to transmit to the muscles of the rider. Horse thickness gives gentle stretches to the adductor muscles in the hips and legs¹⁰. Also, the tri-rotation motion of a horse provides vector strength similar to walking, thereby increasing motor function and core.¹¹ The researchers suggest those who want to get a healthy state should do horseback riding continuously although a short period. Based on hadith Prophet Muhammad, "The charity that Allah loves most is continuous even though a little." [HR Muslim]. And from this study, it can be concluded that horseback riding is a sport full of baraka. That proved other hadith that state "The Prophet Mohammad had also said regarding horses." There are three kinds of horses. A horse for someone becomes a reward, a horse for someone becomes a protector and a horse for someone becomes a sin. As for the horse that brings reward is the horse of someone who is rooted in the path to Allah, he dwells a lot in the meadow or the park. So whatever the horse eats while it is rooted in the savannah or the garden, the owner gets the merit of merit. And if he left him and climbed a place or two high, then his tracks and filth were merits for him. Therefore, a horse like that is a reward for its owner. A horse bound by someone because he wants to maintain self-respect (not begging) and he does not forget the rights of Allah on the neck or back of the horse, the horse becomes a protector for him. And a horse that is bound (trapped) by someone because of pride, Riya and is hostile to Muslims, then the horse brings sin to him." [HR Al-Bukhari: 2371]

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