

Case Study on Judo Implementation
for Preventing Injuries from Falling Off a Horse.

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Background

How to Use the Ukemi



Judo Ukemi



Application of Ukemi Techniques in Daily Life (When Falling)

The Effect of Judo on Fall Prevention

Feasibility of a novel Judo4Balance

– fall preventive exercise program targeting community-dwelling older adults.

Marina Arkkukanga(2020)

Outcomes	Median (pre) (min- max)	Median (post) (min-max)	Proportions of participants that improved	P-value
FES-S (0-130)	120 (94-130)	127 (86-130)	51 %	.133
SPPB (0-12)	11 (6-12)	11 (8-12)	38 %	.030
Fall techniques backward (0-4)	1 (0-4)	4 (0-4)	71 %	<.001
Fall techniques forward (0-4)	1 (0-2)	2 (0-4)	75 %	<.001

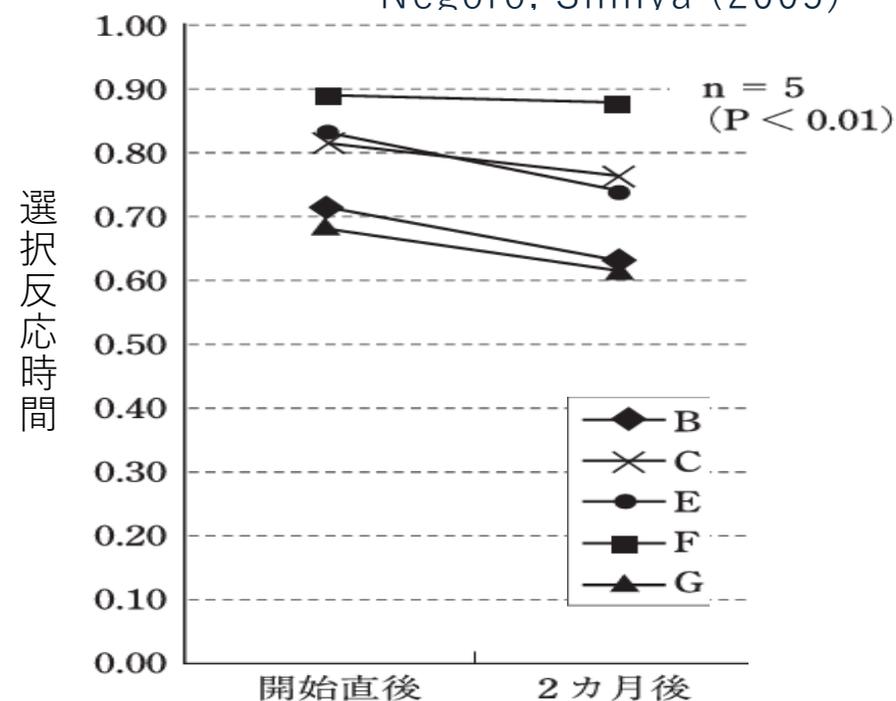
Note FES-S= Falls efficacy scale-Swedish version, SPPB= Short Physical Performance Battery; bold figures indicate a significant value ≤ 0.05 .

Table 2. Medians, proportions and results from the Wilcoxon rank sum test for all measurements (n=21).

The Effect of Fall Prevention Exercises Incorporating Judo Movements

(S)

Negoro, Shinva (2005)



Judo → Physical Performance ↑ Falling Techniques ↑

Judo → Improved selective reaction time

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Application of Ukemi Techniques in Daily Life (When Falling)



• Initiatives at the Japan Horse Racing Association

To prevent serious injuries from horse-riding accidents, **judo classes have been made mandatory** at **Horse racing schools.**

Purpose

○ This report details the judo program for fall prevention at the Horse racing school and presents students' feedback on the lessons.



Program Details

- **Number of Judo Sessions**

Once or twice a month, 12 to 15 times a year, for two years.

- **Number of students**

8 to 10 students per academic year

- **Gender ratio**

Each grade has mostly boys, with only one or two girls.

Program Details (**1st grade**)

Warm-up exercises.

(Running , Rolling motion,
forward roll, backward roll.) 15 minutes



Ukemi practice (Front, back, side, front roll.)



Ukemi practice

(**Using balance balls** and **mats** to practice Ukemi.)



Ukemi practice

(**Using a trampoline** to practice Ukemi.)



Programs to be implemented

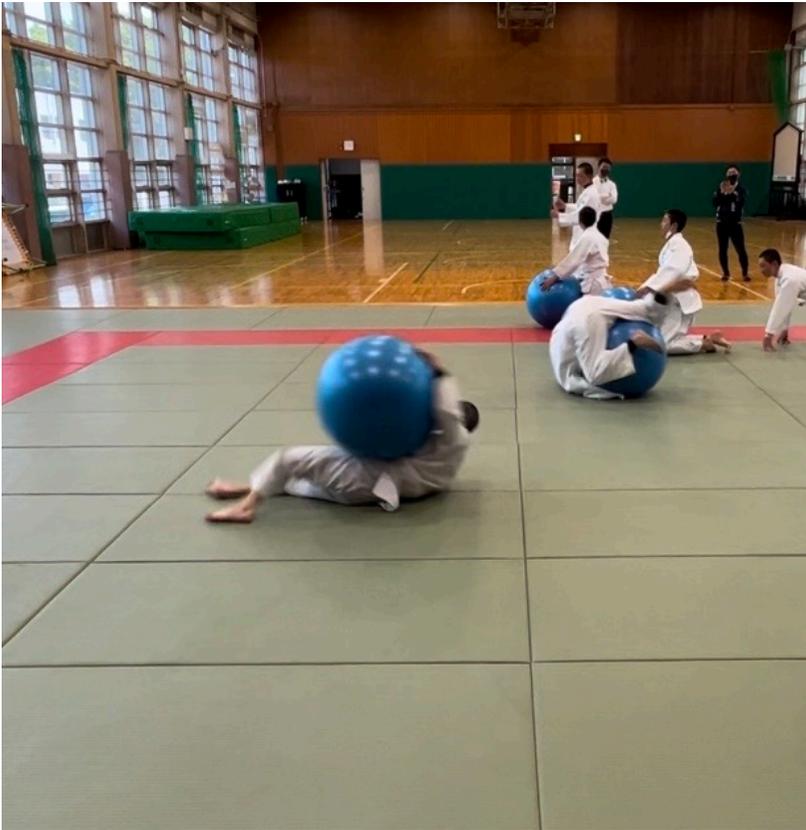


Fig.1 Scene from a Judo Class at the Horse Racing School.

Program Details (2nd to 3rd grade)

Warm-up exercises.
(Running , Rolling motion,
forward roll, backward roll.) 15 minutes.

↓
Ukemi practice (Front, back, side, front roll.)

↓
Ukemi practice
(**Using balance balls** and **mats** to practice Ukemi.)

↓
Nagewaza Practice
(seoinage, taiotoshi, Utimata etc...)



Discussion

◆ At the horse racing school, the focus is on mastering Ukemi rather than Nagewaza. However, as students advance through the grades, they also practice Nagewaza.

→ **Differences in Ukemi were observed between first-year and third-year students.**

◆ The Ukemi techniques of third-year students were observed to be at the same level as those of their peers with judo experience.

→ **Therefore, it is believed that Ukemi techniques can be mastered during the three years at the horse racing school.**

Discussion

◆ However, students who only practiced Ukemi techniques seemed to be losing interest in judo.



◎ It is thought that they had grown bored with judo because they had not practiced Nagewaza and randori.

Conclusion

◆ While focusing on Ukemi practice allows students to master Ukemi techniques, it leads to boredom.

→ **Therefore, it might be a good to practice Nagewaza and randori with someone who has judo experience.**

◎ **Going forward, evidence is now required to demonstrate that throwing techniques are effective in preventing falls.**