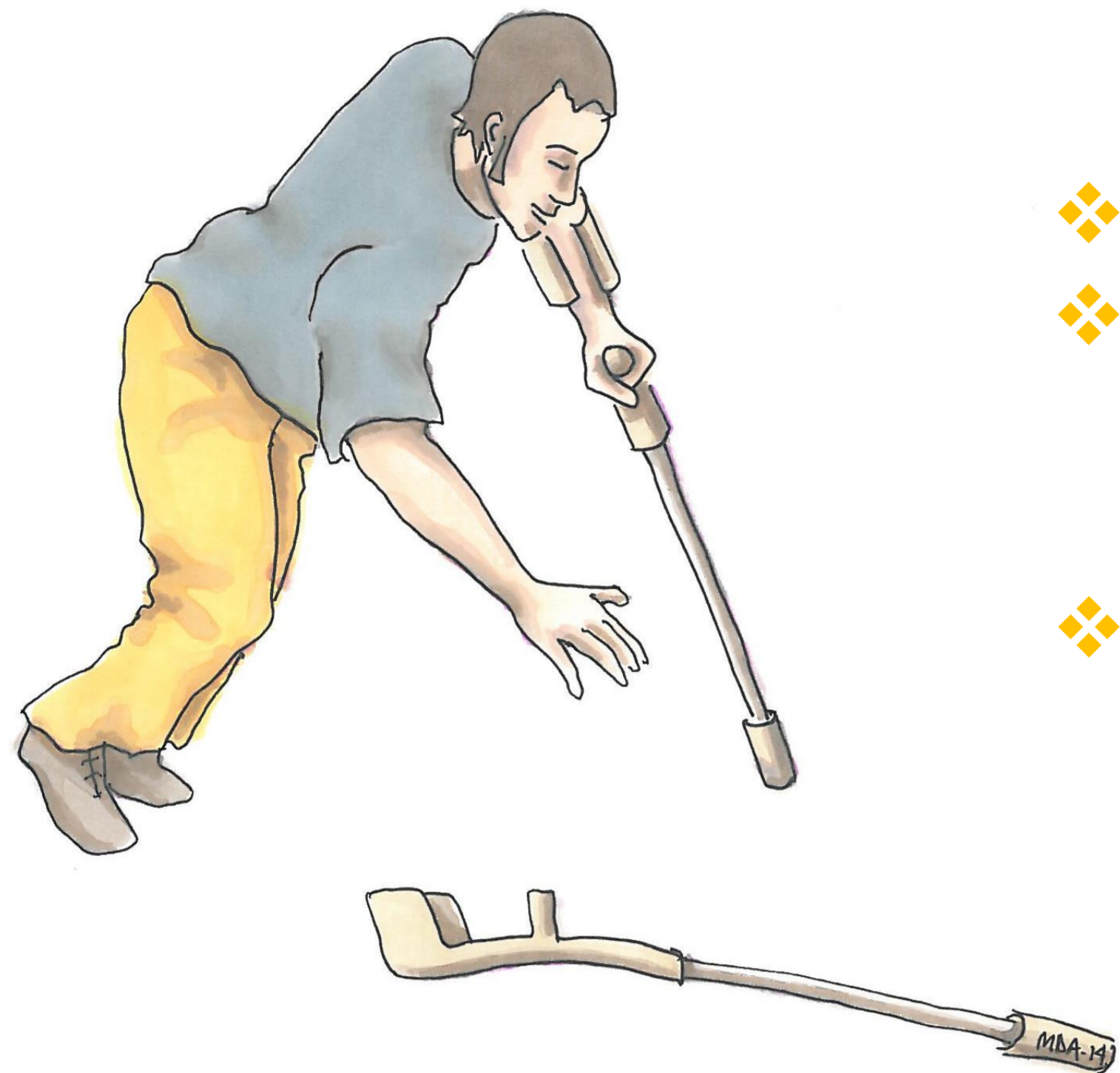


FEAR OF FALLING IN PERSONS WITH SPINAL CORD INJURY

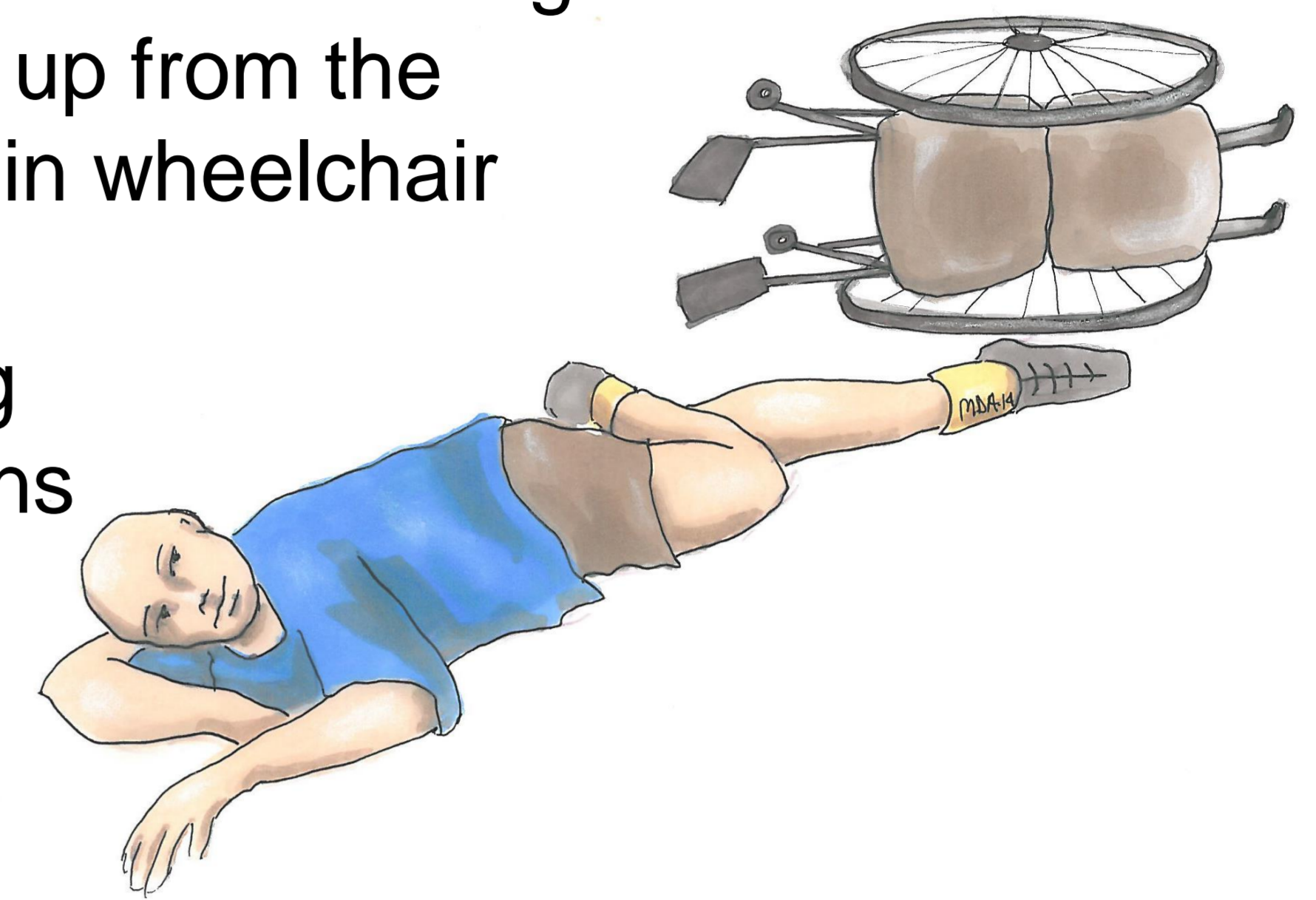
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Conclusion

- ❖ Ambulatory persons had high and wheelchair users low fear of falling
- ❖ Self-reported falls the previous year or inability to get up from the ground, significantly raised the concerns about falling in wheelchair users
- ❖ Highest concern about falling was rated when walking on slippery and uneven surfaces in ambulating persons and when pushing on uneven surfaces and up and down curbs in wheelchair users



Introduction

The spinal cord injury (SCI) population is getting older, and the number of ambulating persons with SCI is increasing. Falls, fall-related injuries and negative consequences of falls are therefore growing health concerns. Fear of falling (FoF) is known to limit activity and participation in ambulating persons and is often assessed with Falls Efficacy Scale International (FES-I).¹ Recently, the Spinal Cord Injury Falls Concern Scale (SCI-FCS) for wheelchair users was developed based on FES-I.² Both scales measure concern about falling in daily life activities.

Aim

To determine FoF in ambulating persons and wheelchair users with SCI and investigate the relationship between FoF and age, gender, ability to get up from the ground and previous falls.

Methods

180 persons with complete and incomplete SCI participating in a multi-center study on falls in Sweden and Norway, reported FoF using FES-I and SCI-FCS. Both scales consists of 16 items with a 4-point ordinal scale (1=not at all concerned, 2= somewhat concerned, 3 = fairly concerned, 4= very concerned), range 16-64 points. Higher scores indicate high levels of FoF. A cut-off score of 23 points was used for high concern of falling.³

Falls with and without injury previous year and ability to get up from the ground were reported in an interview.

Mann-Whitney U test was used to test for differences between sub-groups and analysis were performed on median age, ability to get up from ground (yes/no), fallers/non-fallers, and no fall injury/fall injury. Missing values in SCI-FCS score were replaced according to guidelines for FES-I.

Results

Ambulating persons (wheelchair <25% of the time)

Median FES-I score (range)	28 (16-52)
FES-I items with highest FoF	- walking on slippery/uneven surfaces (median 3) - walking on uneven ground (median 3)

Total FES-I score related to characteristics (Mann-Whitney U-test)

Characteristics (subgroup 1/subgroup 2)	Sub-group 1		Sub-group 2		p
	n	FES-I score (median)	n	FES-I score (median)	
Age, median (< 56/≥56)	31	28	32	28	0.61
Sex (male/female)	42	26	21	32	0.06
Falls previous year (no/yes)	13	26	50	28.5	0.94
Injurious falls previous year (no or minor injury/moderate to serious injury)	48	26.5	15	32	0.33
Able to get up from ground (yes/no)	51	26	11	34	0.16

Wheelchair users (wheelchair ≥75% of the time)

Median SCI-FCS score (range)	20 (16-64)
SCI-FCS items with highest FoF	- pushing on uneven surfaces (median 2) - pushing up/down curbs (median 2)

Total SCI-FCS score related to characteristics (Mann-Whitney U-test)

Characteristics (subgroup 1/subgroup 2)	Sub-group 1		Sub-group 2		p
	n	SCI-FCS score (median)	n	SCI-FCS score (median)	
Age, median (< 46/≥46)	55	21	62	20	0.74
Sex (male/female)	98	21	19	20	0.55
Falls previous year (no/yes)	30	23.5	86	20	0.01*
Injurious falls previous year (no or minor injury/moderate or serious injury)	99	20	18	20,5	0.64
Able to get up from ground (yes/no)	57	19	59	22	0.02*

* P<0.05

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