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Disability in Europe

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**Subjective well-being of people with
and people without
disabilities:
differences between
and within countries**

Chapter 7





7.1 Introduction

In the introductory chapter we stated the general question for this part of the study as follows: do different policy circumstances (i.e. countries) result in different degrees of social participation and subjective well-being of people with disabilities, with the addition of individual factors? To explore this question we introduced a staged model (Figure 7.1). In this model social participation is first seen as an intermediate outcome or dependent variable, and then, along with the socio-demographic characteristics, self-perceived health and mental and economic conditions and the country circumstances, as a possible determinant (i.e. independent variable) of the final outcome variable of subjective well-being.

Figure 7.1. Conceptual model of the pathway from disability to social participation and subjective well-being.

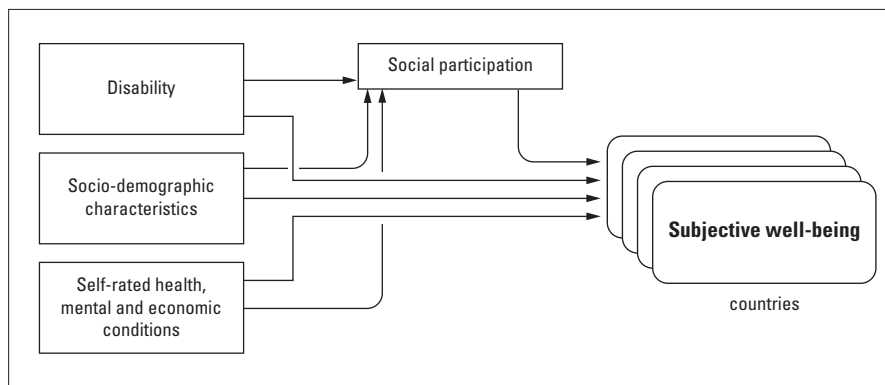
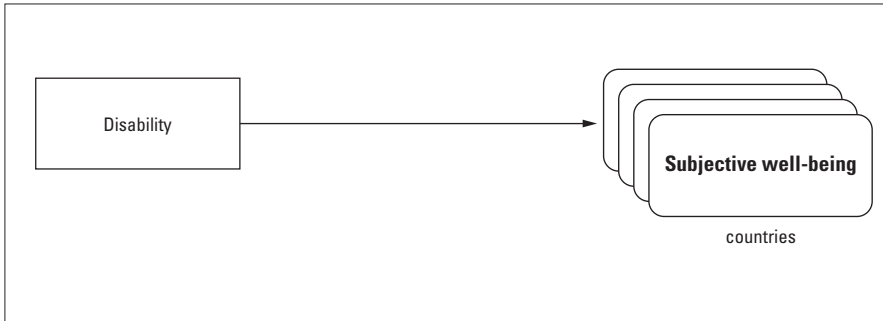


Figure 7.2. Partial conceptual model of the pathway from disability to subjective well-being.



The previous chapters were dedicated to the pathway from disability to social participation, as step 1 (the relation between disability and social participation) and step 2 (the association of the individual factors with and the contribution of these to social participation) of the conceptual model.

This and the next chapter will focus on *Subjective well-being*. In this chapter we will examine – as step 3 in the model and comparable to step 1 – the relation between disability and *Subjective well-being*. Then in the next chapter we will take step 4 of the model and explore the influence of the individual factors on *Subjective well-being*, which is comparable to step 2, but which now includes social participation as an individual determinant.

In step 3 (see Figure 7.2) there are two research questions:

- are there differences in subjective well-being of people with and people without disabilities between the individual countries, and if so, how large are these differences?
- are there differences in subjective well-being between people with and people without disabilities within the individual countries, and if so, how large are these differences?

As explained in the methodology chapter, differences in the scores on *Subjective well-being* between the countries and between the subgroups within the countries are analysed with an analysis of variance. A P-value < 0.05 is considered statistically significant. To compare the magnitude or size of the significant differences, Cohen's effect-size statistic "d" was calculated (Cohen 1988). It estimates whether a significant difference can be denoted as a relevant or important difference. Effect sizes (ES) were calculated only for the statistically significant results ($\alpha = .05$), since differences between groups that are due to sample fluctuation have no relevance, and were estimated with post-hoc tests (with Bonferroni correction for capitalization on chance in multiple testing). Cohen's effect size (ES) for unrelated groups was used to estimate the magnitude of the difference between two groups (mean difference score/the pooled standard deviation), and Cohen's thresholds were used to interpret

Table 7.1. Subjective well-being: n and mean value per subgroup and country¹.

Country	Disabled a lot		Disabled to some extent		Not disabled	
	<i>n</i>	Mean	<i>n</i>	Mean	<i>n</i>	Mean
Belgium	<i>71</i>	6.49	<i>278</i>	7.19	<i>1429</i>	7.72
Germany	<i>179</i>	5.58	<i>576</i>	6.51	<i>2101</i>	7.17
Denmark	68	7.66	<i>253</i>	8.04	<i>1161</i>	8.50
Finland	<i>155</i>	7.30	<i>477</i>	7.69	<i>1388</i>	8.22
Netherlands	<i>117</i>	6.74	<i>378</i>	7.46	<i>1386</i>	7.81
Slovenia	<i>135</i>	5.83	<i>349</i>	6.76	<i>953</i>	7.31
Slovakia	<i>72</i>	4.44	<i>260</i>	4.87	<i>1159</i>	6.23
United Kingdom	<i>155</i>	6.54	<i>297</i>	7.08	<i>1438</i>	7.41
Average all countries		6.32		6.95		7.55

¹) See Table 7.5 for the significance of the differences and the direction of the differences.

the magnitude of the effect size (ES): an ES of < 0.20 indicates a trivial or very small difference; an ES of ≥ 0.20 to < 0.50 a small difference; an ES of ≥ 0.50 to < 0.80 a moderate or medium difference; and an ES of ≥ 0.80 indicates a large difference.

7.2 Outcomes

7.2.1 Differences between countries

Table 7.1 presents the outcomes regarding the first research question, showing the mean value per country for each of the three subgroups of persons on *Subjective well-being*. Table 7.5 (p.116) shows whether the countries differ significantly from each other and in which direction. In the fourth column of the table the country acronyms are either bold or italic grey. If the acronym is in bold, the country represented by the acronym differs positively from the country in the first column. If the acronym is in italic grey, the country differs negatively from the country in the first column. For instance, in the case of Belgium, the subgroup disabled a lot (1) in Slovakia (SK) differs negatively from Belgium, that is to say Slovakia scores significantly lower on *Subjective well-being* than Belgium for this subgroup. Denmark (DK), however, whose acronym is printed in bold, has a significantly higher score for this subgroup than Belgium.

In Denmark and Finland (see Table 7.1) persons in all three subgroups score the highest. Denmark differs significantly from the other countries across all three subgroups, with three exceptions: Finland for the disabled a lot and the disabled to some extent and the Netherlands for the disabled a lot. Concerning the disabled a lot, Finland differs significantly from Germany, Slovenia and Slovakia; with regard to the disabled to some extent, it differs significantly from all the other countries except

Table 7.2. Effect sizes: sizes of the (significant) differences between countries in *Subjective well-being of the disabled a lot*.

Countries	BE	DE	DK	FI	NL	SI	SK	UK
Belgium								
Germany	- ¹							
Denmark	0.61	0.88						
Finland	-	0.76	-					
Netherlands	-	0.50	-	-				
Slovenia	-		0.85	0.70	0.42			
Slovakia	0.99	0.46	1.55	1.42	1.09	0.62		
United Kingdom	-	0.42	0.56	-	-	-	1.02	
	BE	DE	DK	FI	NL	SI	SK	UK

Table 7.3. Effect sizes: sizes of the (significant) differences between countries in *Subjective well-being of the disabled to some extent*.

Countries	BE	DE	DK	FI	NL	SI	SK	UK
Belgium								
Germany	0.36							
Denmark	0.52	0.80						
Finland	0.32	0.65	-					
Netherlands	- ¹	0.52	0.38	-				
Slovenia	-	-	0.73	0.56	0.42			
Slovakia	1.19	0.78	1.63	1.57	1.43	0.93		
United Kingdom	-	0.29	0.54	0.36	-	-	1.07	
	BE	DE	DK	FI	NL	SI	SK	UK

Table 7.4. Effect sizes: sizes of the (significant) differences between countries in *Subjective well-being of the not disabled*.

Countries	BE	DE	DK	FI	NL	SI	SK	UK
Belgium								
Germany	0.33							
Denmark	0.59	0.82						
Finland	0.38	0.66	0.24					
Netherlands	- ¹	0.40	0.57	0.34				
Slovenia	0.26	-	0.82	0.64	0.35			
Slovakia	0.89	0.50	1.41	1.27	1.00	0.59		
United Kingdom	0.20	0.14	0.75	0.57	0.28	-	0.66	
	BE	DE	DK	FI	NL	SI	SK	UK

¹) Difference between the two countries not significant

Denmark and the Netherlands; and regarding the not disabled, Finland differs from all the other countries, be it negatively from Denmark. The Netherlands, Belgium, the United Kingdom and Slovenia are in a middle position. While on the upside, the Netherlands have significant differences with Germany, Slovenia and Slovakia regarding all the subgroups, on the downside, Slovenia has in all three cases significant differences with Denmark, Finland and the Netherlands. In Germany and Slovakia persons in all three groups score the lowest. Germany has significantly lower scores than Denmark, Finland, the United Kingdom and the Netherlands for all three subgroups and is also significantly lower than Belgium for the disabled to some extent and the not disabled. Slovakia has significantly lower scores than all the other countries for all three subgroups.

The sizes of the differences in Tables 7.2 through 7.4 reflect the position of the countries in relation to each other. Denmark's differences with other countries regarding people with disabilities are mainly moderate or large: moderate with Belgium and the United Kingdom and large with Germany, Slovenia and Slovakia. Finland has large differences with Slovakia, but moderate ones with Germany and Slovenia and small ones with Belgium and the United Kingdom. The Netherlands, Belgium and the United Kingdom are in the middle with no differences, small differences or moderate differences with Denmark and Finland on the one hand, and no differences, small differences, moderate differences or large differences with Germany, Slovenia and Slovakia on the other. The latter three countries are, with some exceptions, more or less a mirror image of Denmark and Finland.

7.2.2 Differences within countries

Table 7.6 (overleaf) shows that in all countries almost all of the "within-group differences" are statistically significant. Only in Denmark and Slovakia the difference in *Subjective well-being* between the disabled a lot and the disabled to some extent is not significant. In all countries the size of the differences between the disabled a lot and disabled to some extent (A-B) are small or not significant, with the smallest occurring in Denmark, Finland, Slovakia and the United Kingdom. In Denmark, Finland and the United Kingdom the differences between the disabled a lot and the not disabled (A-C) are moderate or medium, while in the other countries they are large. The differences between the disabled to some extent and the not disabled (B-C) are small everywhere; only in Slovakia is this difference moderate. These differences are the smallest in the United Kingdom and the Netherlands, and in Finland, although small, this difference is relatively high compared to the other countries.

Table 7.5.

Significant differences¹ and the sizes of these differences between countries with regard to the three subgroups of persons on *Subjective well-being*.

	Disabled		Significant differences
Belgium BE	1: a lot	+ ²	DK
		-	<i>SK</i>
	2: some extent	+	DK, FI
		-	<i>DE, SK</i>
	3: not	+	DK, FI
		-	<i>DE, SI, SK, UK</i>
Germany DE	1: a lot	+	DK, FI, NL, UK
		-	<i>SK</i>
	2: some extent	+	BE, DK, FI, NL, UK
		-	<i>SK</i>
	3: not	+	BE, DK, FI, NL, UK
		-	<i>SK</i>
Denmark DK	1: a lot	+	
		-	<i>BE, DE, SI, SK, UK</i>
	2: some extent	+	
		-	<i>BE, DE, NL, SI, SK, UK</i>
	3: not	+	
		-	<i>BE, DE, FI, NL, SI, SK, UK</i>
Finland FI	1: a lot	+	
		-	<i>DE, SI, SK</i>
	2: some extent	+	
		-	<i>BE, DE, SI, SK, UK</i>
	3: not	+	DK
		-	<i>BE, DE, NL, SI, SK, UK</i>
Netherlands NL	1: a lot	+	
		-	<i>DE, SI, SK</i>
	2: some extent	+	DK
		-	<i>DE, SI, SK</i>
	3: not	+	DK, FI
		-	<i>DE, SI, SK, UK</i>
Slovenia SI	1: a lot	+	DK, FI, NL
		-	<i>SK</i>
	2: some extent	+	DK, FI, NL
		-	<i>SK</i>
	3: not	+	BE, DK, FI, NL
		-	<i>SK</i>
Slovakia SK	1: a lot	+	BE, DE, DK, FI, NL, SI, UK
		-	
	2: some extent	+	<i>BE, DE, DK, FI, NL, SI, UK</i>
		-	
	3: not	+	<i>BE, DE, DK, FI, NL, SI, UK</i>
		-	
United Kingdom UK	1: a lot	+	DK
		-	<i>DE, SK</i>
	2: some extent	+	DK, FI
		-	<i>DE, SK</i>
	3: not	+	BE, DK, FI, NL
		-	<i>DE, SK</i>

¹) Tests of significance: analysis of variance and the Bonferroni post-hoc test. P-value < 0.05 is considered statistically significant.

²) If the acronym is in the '+ row' in bold, the country represented by the acronym differs positively from the country in the first column. If the acronym is in the '- row' in grey italic, the country represented by the acronym differs negatively from the country in the first column.

Table 7.6. Subjective well-being: mean value of the three subgroups per country and the effect size: size of the significant differences between the subgroups per country.

Country	Disabled a lot (A)	Disabled to Some extent (B)	Not disabled (C)	Difference size A - B	Difference size B - C	Difference size A - C
Belgium	6.49	7.19	7.72	0.41	0.36	0.84
Germany	5.58	6.51	7.17	0.43	0.35	0.84
Denmark	7.66	8.04	8.50	- ¹	0.36	0.67
Finland	7.30	7.69	8.22	0.24	0.43	0.73
Netherlands	6.74	7.46	7.81	0.45	0.28	0.83
Slovenia	5.83	6.76	7.31	0.47	0.31	0.83
Slovakia	4.44	4.87	6.23	-	0.69	0.92
United Kingdom	6.54	7.08	7.41	0.28	0.20	0.52
Average all countries	6.32	6.95	7.55			

¹) Difference between the two subgroups not significant.

7.3 Conclusions and discussion

With respect to all three subgroups there are many differences between the countries. With a maximum of 21 differences (see Table 7.5), five countries have 12 to 15 significant differences, and three countries have more significant differences: Germany 17, Denmark 18 and Slovenia 21. As was also the case with regard to the differences in Social participation between the countries, the number of positive versus negative differences per country also differs considerably. In Denmark 100% and in Finland 93% of the significant differences are positive differences versus 0% and 7% negative, respectively. This means that where Denmark or Finland differ from other countries in 10 and 9 out of 10 cases, this difference is “in favour” of Denmark or Finland. On the other hand, in Slovakia none of the significant differences are “in favour” of Slovakia. Compared to the other countries, Slovakia is bad off in all cases. In Germany and Slovenia 18% and 23% are significant “in favour” differences. Belgium, the United Kingdom and the Netherlands are in a middle position, with the Netherlands on the upside with 77% positive and 23% negative significant differences. The pattern of differences of these three countries with regard to the disabled groups is identical: in all three cases there are negative significant differences from Denmark and Finland and positive differences from Germany, Slovenia and Slovakia. The position of Germany so close to Slovenia and Slovakia is remarkable. In a detailed analysis we tried to determine whether the situation and living conditions in the former East Germany, which may resemble those in Slovenia and Slovakia, contribute to this result. The analysis showed that on the one hand the former Western German regions have a significantly higher score than the former

Eastern German regions and Slovakia, but show no significant difference with Slovenia. On the other hand, the former East Germany has a significantly lower score than the former West Germany and Slovenia, but a significantly higher one than Slovakia. These outcomes are in accordance with other European data (European Foundation 2003). Combining outcomes on 'Life satisfaction' and 'Happiness' from that project, the order of the four 'countries' is: West-Germany, Slovenia, East-Germany and Slovakia. This indicates that the former Eastern German regions contribute partly to the position of Germany as a whole, but that the former Western regions also have a relatively low score on *Subjective well-being*.

Surveying the significant differences between the countries in Table 7.5, it is noticeable that the pattern of the differences is the same for all three subgroups; that is to say, if there is a difference with a country for the disabled a lot, there is also a difference for the disabled to some extent and for the not disabled. A difference does not 'disappear'; only new ones are added, maybe because of a greater diversity of the group or because the numbers are larger. This could also be turned around by saying that there is only a difference between two countries regarding the disabled a lot, if the difference is there for the disabled to some extent, and there is only a difference concerning the disabled to some extent if the difference is there for the not disabled. Perhaps this means that the difference for the disabled a lot is there for the same reason as for the disabled to some extent and for the not disabled. It seems that *Subjective well-being* is in part dependent and influenced by 'country circumstances' which are equal for all subgroups.

Considering the sizes of the differences between the subgroups within the countries, Table 7.6 shows that the distance between the subgroups is in all countries the largest in case of the disabled a lot versus the not disabled. The differences between the disabled a lot and the disabled to some extent are in five of the eight countries larger than the differences between the disabled to some extent and the not disabled. This indicates that in these countries the disabled to some extent are more like and closer to the not disabled than to the disabled a lot. In Denmark, Finland and Slovakia this is not the case. The sizes of the differences between the disabled to some extent and the not disabled are close to each other, with an exception on the upside in Slovakia and one on the downside in the United Kingdom. All in all, with absolute scores at the same time the highest of the eight countries in Denmark and Finland, but likewise in the United Kingdom because of the low difference sizes between the subgroups in this country, the situation can be seen as an indication of the "equality of society". In Slovakia the difference between the disabled a lot and the disabled to some extent is not significant. Thus, these two subgroups are, with the lowest absolute scores, very close to each other, and the distance from both groups to the not disabled is considerable. The situation here seems to represent the other side of the picture from Denmark, Finland and the United Kingdom. The detailed analysis, when looking at the German regions, showed that the former West Germany, with two small significant differences and a large one between the disabled a lot and the not disabled, fits the pattern of the other Western countries. In the former East

Germany, however, there is only a medium sized significant difference between the disabled a lot and the not disabled, which more resembles Slovakia.

In this chapter we explored the relation between disability and *Subjective well-being* in eight countries. We found that there are many significant differences between the countries for all three subgroups, and that within the countries almost all the differences between the three subgroups are significant. With regard to the differences in *Subjective well-being* between the countries, people with disabilities in Denmark and Finland have the highest scores, with the Netherlands in the third position. Regarding the differences within the countries, the sizes of the differences between the subgroups are lowest in Denmark, Finland and the United Kingdom. Slovakia is in a relatively low position for both types of differences. Germany and Slovenia are, concerning the differences between the countries, also in a relatively low position, but regarding the internal differences they are close to Belgium and the Netherlands.

In the next chapter we will try to explain the differences and will investigate the influence of socio-demographic factors, self-perceived health and mental and economic conditions and social participation on *Subjective well-being* in addition to disability.

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