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Environmental Factors in the Activities and Participation domains: a longitudinal comparison

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Abstract A sample of the 126 patients was selected and evaluated both in 2011 and 2012. A descriptive analysis of the coded EF in the AP domains allowed to deepen the EF effectiveness, comparing it by year. EF were coded mainly in chapters d2, d5, and d6 and when the performance qualifier value was equal to 1, 2 or 3; EF were more effective in items of chapter d6.

Introduction

In 2011 and in 2012, a field trial was carried out in Friuli Venezia Giulia Region using a new electronic ICF-based functioning/disability assessment protocol (VILMA-FABER) (1). After a preliminary description of the sample, the interest was devoted to the longitudinal analysis of the Environmental Factors (EF) role on the Activities and Participation (AP) limitation presence and/or extent.

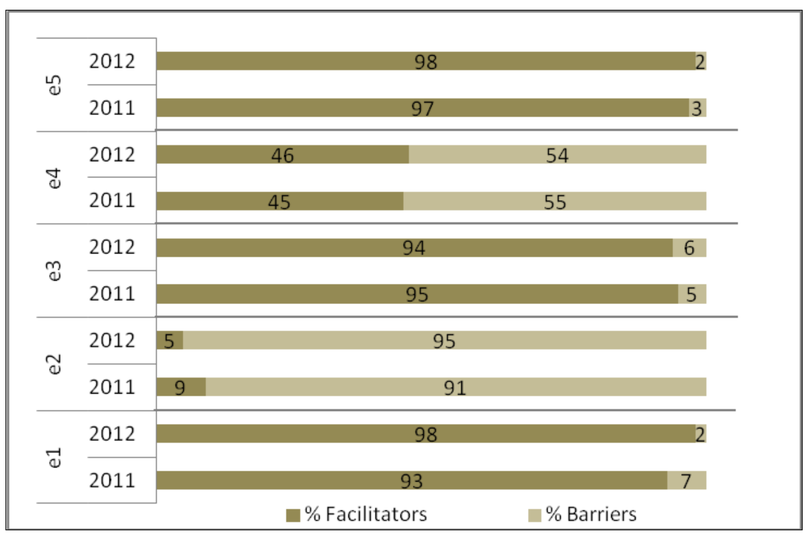
Methods & Materials

A sample of the 126 patients, evaluated both in 2011 and 2012, was selected (mean age 33 years in 2011 and 35 in 2012, 41% females, 7% married, 18% in 2011 and 20% in 2012 living alone, 5% occupied, 88% in 2011 and 70% in 2012 certified under Italian invalidity laws). A descriptive analysis of the coded EF in the AP domains allowed to deepen the EF effectiveness, comparing it by year. The assessment protocol considered an ad hoc check list of 67 AP categories from all the nine AP chapters. EF were coded in the AP component for every selected item. The intervals of AP qualifier values were defined according to the exploratory analysis. Analyses were performed using R Software [1].

Results

Globally, the EF related to the AP considered categories were 8,734, in the 2011 sample, and 7,848, in the 2012 one: the 93% (in 2011) and the 95% (in 2012) were coded as facilitators. In both years, most EF in categories of chapters e1, e3 and e5 were coded as facilitators, while those belonging to chapters e2 and e4 were coded mainly as barriers (see Figure 1).

Figure 1 – Distribution of EF coded as facilitator/barrier by year and by EF chapter.



The analysis on the presence/absence of any EF citation by performance qualifier values showed that in d2, d5 and d6 AP chapters the number of categories with EF was larger than the number of categories without; furthermore, EF were more frequently coded when the performance qualifier value was equal to 1, 2 or 3 (see Figures 2a and 2b).

Figure 2a – Distribution of AP categories by performance qualifier value and EF presence, by year.

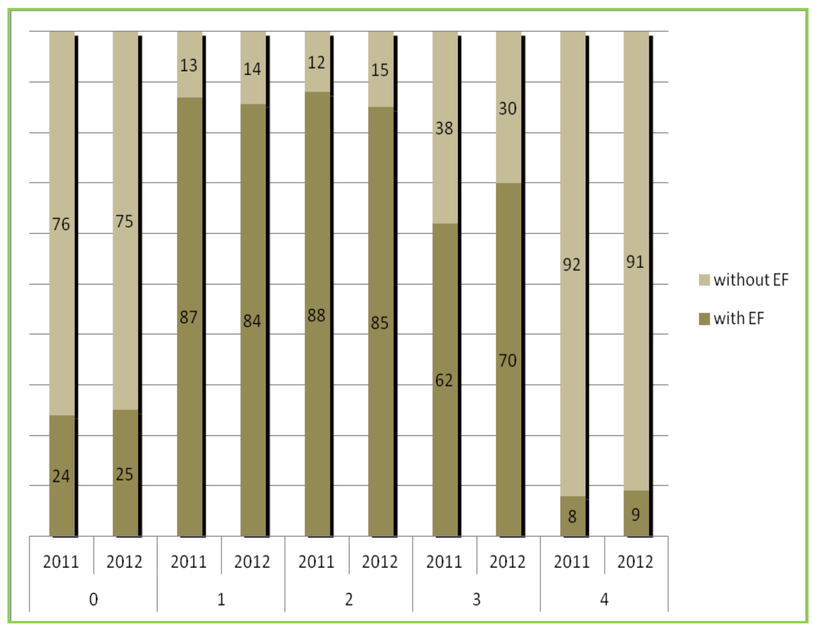
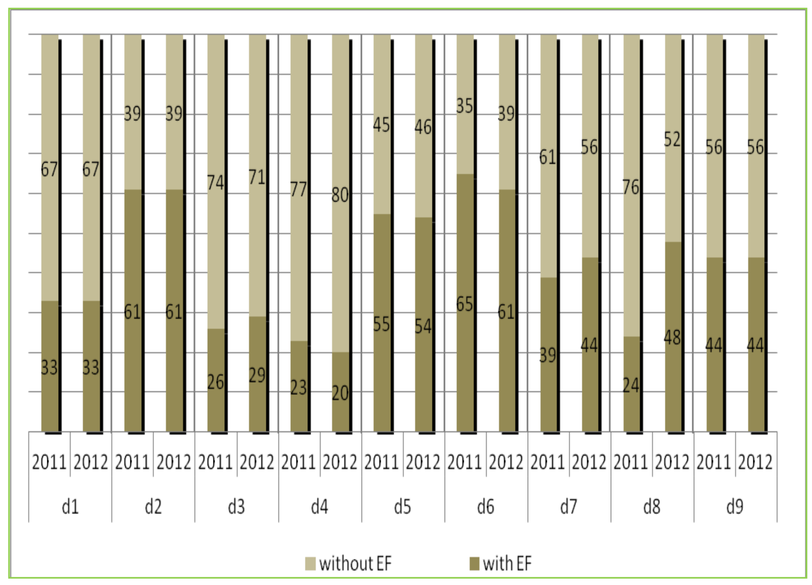
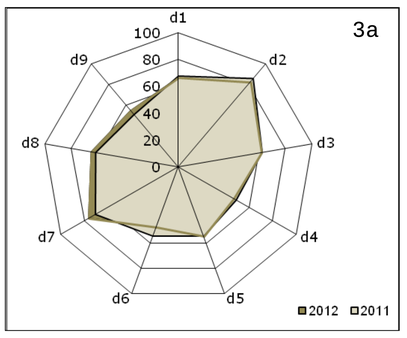


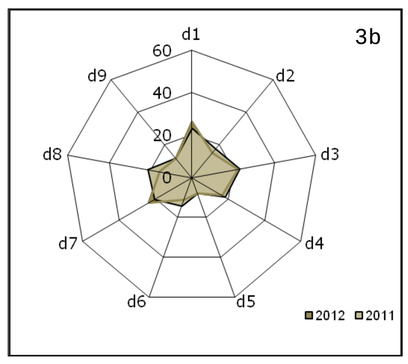
Figure 2b – Distribution of AP categories by chapter and EF presence.

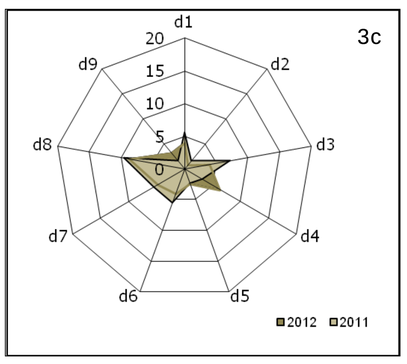


In both years and limited to the AP items with some EF coded, the chapters d5 and d6 showed the largest reduction in the proportion of persons with a value 1-4 of the performance qualifier with respect to the same values in the capacity one. Considering in the comparison only qualifiers' value 3 or 4, such reduction was large in all the chapters, particularly in d2, d5, d6 and d8, and it is even more large than that observed with qualifier value 4 only, which are larger for chapters d6 and d8. These evidences were confirmed in both years.
Considering the comparison on performance qualifier between 2011 and 2012 samples, the proportion of persons with qualifier 1-4 is higher for the 2011 sample in chapters d2, d3, d4 and d6 and is the same for both years in chapter d5 (Figure 3a); the comparison on performance qualifier value 3 or 4 pointed out the same results, except for chapters d1, where the proportion of persons with qualifier 3 or 4 is higher for the 2012 sample and d8, where it is higher for the 2011 sample (see Figure 3b).
The proportion of persons with at least once performance qualifier value equal to 4 was higher in most of the chapters for the 2011 sample, except d5, in which the proportion was the same in both years, d4 and d9, where the proportion was higher for the 2012 chapters (Figure 3c).

Figures 3a-3b-3c – Radar of percentages of persons with at least one performance qualifier value from 1 to 4, from 3 to 4 and equal to 4, in 2011 and in 2012 .







Conclusions

In this explorative analysis the EF resulted to be coded mainly in items of chapters d2, d5, and d6 and when the performance qualifier value was equal to 1, 2 or 3. Considering only the AP items with some coded EF and the value of the qualifiers performance and capacity from 1 to 4, we found the highest frequency of EF effectiveness in chapters d5 and d6, while considering only qualifiers' value 3 or 4, we found a high frequency of effectiveness of EF in every chapter. Considering only qualifiers' value 4, the effectiveness of EF was higher in chapters d6 and d8. The same results were obtained in both years.
Globally, the chapter presenting the highest effectiveness of EF for every interval of qualifiers' value was d6.
Considering only the performance qualifier, the analysis showed an improvement in the categories of chapters d2, d3 and d6, where the proportion of persons with qualifier value 1-4, 3-4 and 4, was lower in 2012 than in 2011; considering chapter d5, proportions were constant between 2011 and 2012 for every interval of performance values considered.

References

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Acknowledgements

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