

Socio-economic value of cultural ecosystem services in urban green landscapes: evidence from a metropolitan public park

Silvia Novelli¹, Alessandro Corsi², Maria Letizia Borin³, and Simone Blanc¹



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Highlights

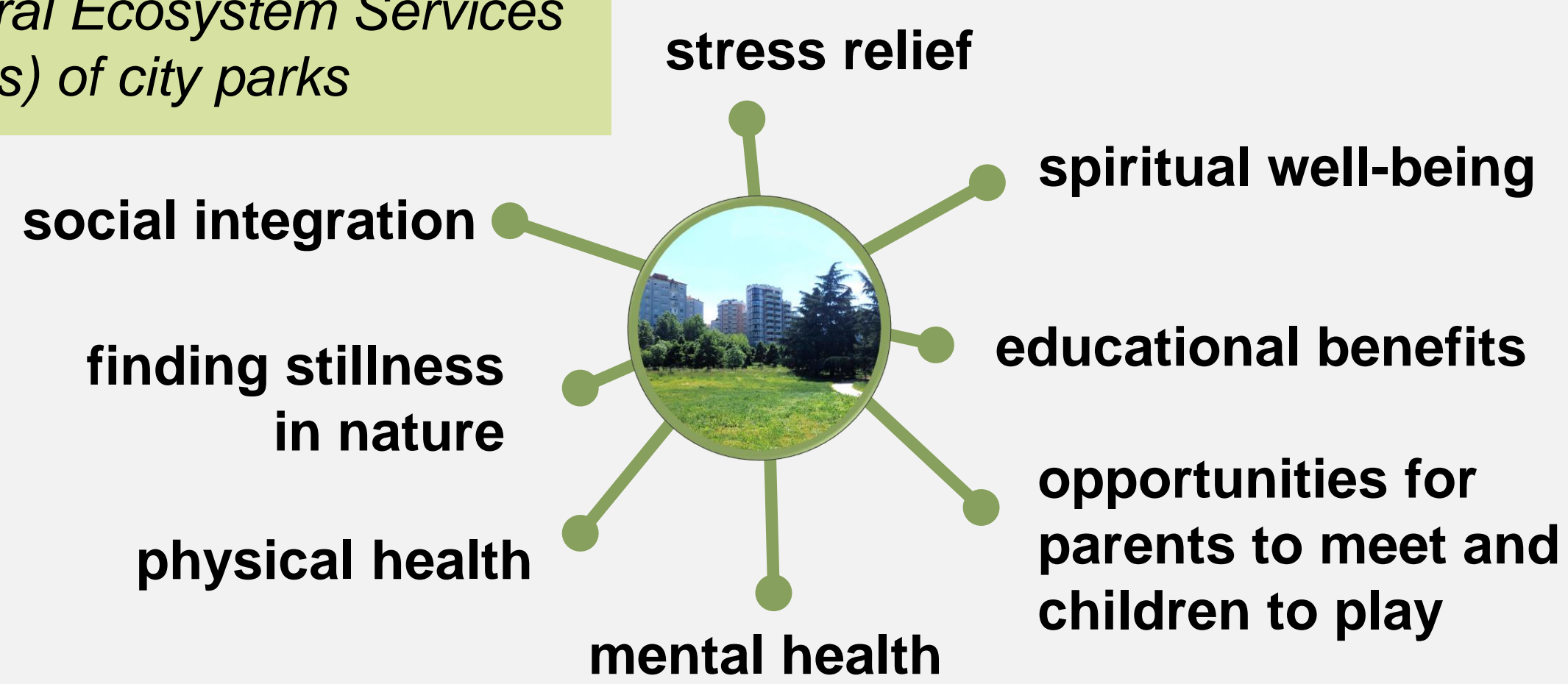
- Parco Colonnetti* is a 40-hectare city park, with 3,000 trees and shrubs, in a suburban district of Turin (Italy)
- 3 types of users with different preferences for **cultural ecosystem services (CESs)** frequent the park
- Each visitor is willing to pay 50 €/year for the conservation of the park CESs (equal to 1,68 €/visit)

Introduction



Urban green spaces provide dwellers with a wide range of ecosystem services, including **CESs**. Estimating their monetary value allows for **monitoring the efficiency of public spending** on urban park management

Cultural Ecosystem Services (CESs) of city parks



Objectives



Identify visitor profiles of a city park (*Parco Colonnetti* in Turin) based on the main benefits they receive



Estimate the use value visitors place on the park CESs

Data and methods

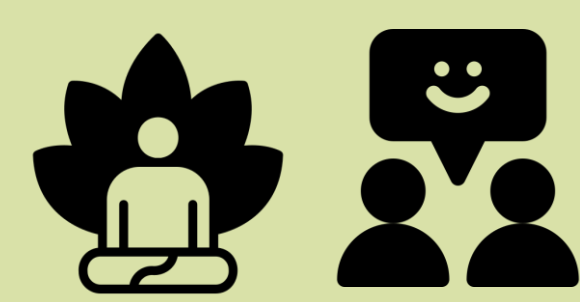
Face-to-face interviews with park users, 300 + 39 (pre-test) administered questionnaires from July to November 2022. Monetary and non-monetary survey methods were integrated.

not important 1 2 3 4 5 very important

- respondents scored the importance of the benefits provided by CESs on a 5-point Likert scale
- data were analysed with the Principal Component Analysis (PCA) method

- respondents' willingness to pay (WTP) for the conservation of the park CESs was estimated with the Contingent Valuation method
- WTP values were elicited from a hypothetical scenario; then, the individual WTP function of the respondents was estimated

3 profiles of users based on the perceived benefits (PCA results, 339 obs.)



spiritual and convivial



parents seeking mental well-being



stressed health-conscious

Results

Individual WTP for the CESs of the park (€/year)

	Obs./cases	Mean WTP	SD	Min	Max
Sample data	251	50.47	35.41	-50.29	154.81
Monte Carlo simulation	10,000	50.61	4.87	33.62	73.30

- about **1.68 €/visit**; total value for nearby residents ≈ **6.5 M€/year** (conservative estimation)
- user profiles do not seem to influence WTP, which is not statistically different for different types of users

1 Findings regarding the type of provided CESs align with similar studies in Europe

2 The share of users willing to pay for park CESs conservation (> 50%), and their average WTP are higher than those found in other European cities

3 The annual user count of *Parco Colonnetti* is unknown. However, ≈ 2,600 visitors/year (just 1.2% of nearby residents) would be sufficient to offset the annual maintenance costs of the park (≈132,000 € in 2023). Thus, the public expenditure for *Parco Colonnetti* seems to be fully justified.

Conclusions

silvia.novelli@unito.it

University of Turin (Italy)

¹ Department of Agricultural, Forest, and Food Sciences (DiSAFA)

² Department of Economics and Statistics "Cognetti de Martiis" (ES)

³ Department of Life Sciences and Systems Biology (DBios)

