Mentoring to guide women's academic careers. A review and proposition for future research

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Outline

Mentoring initiatives in the professional world have informed the first conceptual literature on mentoring, such as Kram (1983) on the different phases of mentorships and Ragins (1997) on the intersection between gender, ethnicity, and power in mentoring. The beneficial effects of mentoring have been abundantly shown: Eby, Allen, Evans, Ng, and DuBois (2008) in their review distinguish among youth, academic, and workplace mentoring, and underline the favourable outcomes for mentees, especially in the case of academic mentoring. Mentoring outcomes for mentees is a recurrent topic (Allen, Eby, O'Brien, & Lentz, 2008; Ugrin, Odom, & Pearson, 2008); how the mentoring process works and the implications for all the participants (mentors, mentees and the institutions involved), are overlooked and systematic criteria and methods for evaluating the multi-dimensional impact of mentoring activities are lacking. Research on the potential pitfalls of mentoring, especially when targeting only specific groups (i.e. women or ethnic minorities), is poor.

Our focus is on academic mentoring for female early career researchers (PhD students, post-doc researchers, junior academics); we privileged papers in peer-reviewed journals and institutional reports. This review should allow, first, to formulate concepts able to guide future research; second, to highlight the challenges associated with academic mentoring.

European and UK data clearly show the existence of vertical and horizontal segregation affecting women academics (European Commission, 2012a; Science and Technology Committee, 2014; Athena Forum, 2010). Mentoring is considered relevant for improving this situation (Chandler, 1996; European Commission, 2012b; Nöbauer & Genetti, 2008; Wunsch, 1993); former EU-funded projects demonstrated the positive role of mentoring, even if it is still early to understand its long-term effects on academic careers (ASDO, 2009).

Gardiner, Tiggemann, Kearns, and Marshall (2007) provide the most complete study on mentoring for female academics: they draw on a longitudinal design and they show the positive effects of one-to-one mentoring for the mentees. Hawkes (2012) provides the most recent review on academic mentoring for women in UK: she explains the different types of mentoring that are common in academia (peer mentoring, formal mentoring, informal mentoring), and she underlines the importance of training both mentors and mentees for having effective mentorships and of institutional support for strengthening the status and uptake of mentoring. More scholars stress the need of shifting from the traditional one-to-one mentoring model to group mentoring, where mentees are grouped and can rely on more mentors: this model should be better able to address the challenges of present academic careers (Darwin & Palmer, 2009; de Janasz & Sullivan, 2004; Sorcinelli & Yun, 2007). Some contributions are especially focused on disciplines where women are strongly underrepresented, such as informatics and engineering (Childress Townsend, 2002; Pisimisi & Ioannides, 2005; Ugrin et al., 2008). Very interesting are the studies stressing that mentoring can be not only a resource for fostering academic careers, but also an input for orienting academia towards policies supporting diversity and gender equality, even if these changes can be visible only on the

long term and are the most difficult to attain (de Vries, Webb, & Joan, 2006; Füger & Höppel, 2011; Jäger, 2010).

From our review we could make the following observations: first, definitions of mentoring have to be clarified, to avoid confusion between mentorship and formal supervision; second, it is worth to distinguish among target groups (students, PhD students, post-doc researchers, females or males, disciplines, etc.) because diverse positions mean also diverse needs, shaping very differently the mentorship; third, the mentoring model is important (one-to-one, peer, or group mentoring); finally, a stronger focus on processes and long term effects is beneficial in order to develop a conceptual framework of mentoring.

We propose, as sensitizing categories to guide research on academic mentoring: type of mentoring (formal or informal); target group; mentoring model. Instead of distinguishing between type of outcomes, as most literature does, we propose to distinguish between short term and long term effects and to analyse them in relation to the mentor, the mentee, and the institution. As the most important challenge of mentoring in academia, we highlight that the introduction of new activities for scholars often means to add a new time slot to an already busy schedule: this is why institutions committed to diversity and to the training of junior researchers should find a way of rewarding and formally acknowledging academics participating in these initiatives.

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