Self-efficacy configurations and wellbeing in the academic context: A person-centred approach☆

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ABSTRACT

The aim of the present study was to identify self-efficacy configurations in different domains (i.e., emotional, social, and self-regulated learning) in a sample of university students using a person-centred approach. Results from a two-cohort sample (N = 1650) assessed at the beginning of their first year supported a 4-cluster solution: 1) Highly Self-Efficacious students, with high levels of self-efficacy in all domains; 2) Low Self-Efficacious students, with low levels of self-efficacy in all domains; 3) Learning and Socially Self-Efficacious students, with a medium-high level of self-regulated learning, medium level of social, and medium-low level of emotional self-efficacies; and 4) Emotionally Self-Efficacious students, with a medium-high level of emotional, medium-low level of social, and low level of self-regulated learning self-efficacies. The association of these configurations with wellbeing indicators, concurrently and one year later, provides support for the validity of the cluster solution. Specifically, by adopting the informative hypothesis testing approach, results showed that the first and second groups have the best and the worst wellbeing levels, respectively. Furthermore, whereas the other two groups did not differ with respect to depression, Learning and Socially Self-Efficacious students have higher life satisfaction than the last group. These results were confirmed both concurrently and over time.

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1. Introduction

The importance of self-efficacy (SE) for academic success has been well documented (Richardson, Abraham, & Bond, 2012). Moreover, SE contributes to students' wellbeing and the quality of their academic experience (Zajacova, Lynch, & Espenshade, 2005). Studies have mainly investigated the role of SE in relation to academic activities (e.g., Chemers, Hu, & Garcia, 2001) while overlooking SE in managing other important challenges that students must face during education. Students must not only plan and organise learning activities but also, for example, manage their negative emotions during evaluation situations and establish and maintain supportive relationships with others to achieve their academic goals (Newby-Fraser & Schlebusch, 1997).

In the present study, drawing on the person-centred approach (Magnusson, 1999), we examined the conjoint interplay of three SE dimensions in promoting students' wellbeing. In particular, we considered emotional, social, and self-regulated learning SEs in line with the extensive literature supporting their protective roles across contexts

(e.g. Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Richardson et al., 2012). By adopting the person-centred rather than the variable-centred approach, we aim to: (1) identify groups of freshmen characterised by different SE configurations and (2) examine how these are associated, concurrently and over time, with depression and life satisfaction.

This approach can be particularly informative given the domain-specific nature of SE (Bandura, 1997). Indeed, personal beliefs in different domains will not necessarily 'move together' and, thus, they can result in distinct self-organising patterns. Indeed, some students may perceive themselves as able to manage their social interactions but neither their activities related to self-regulated learning nor their negative emotions. The analysis of the association between SE configurations and wellbeing will help in identifying how groups of students can rely on different perceived capabilities to adapt themselves to their academic context. In line with the principle of equifinality (Moreira et al., 2015) and the basic principles of the person-centred approach (Magnusson & Torestad, 1993), it is possible that a group of students may compensate a perceived lack of competence in a specific domain with a stronger perceived competence in a different one. Consequently, the adoption of the person-centred approach may help researchers to better appreciate whether and to what extent different configurations show different profiles in some outcomes, but similar profiles in others. In sum, the

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focus on individuals – rather than on variables relationships – could allow the understanding of qualitatively inter-individual differences derived from distinct SE patterns.

Although several studies have extensively adopted the person-centred approach to examine how different students' configurations are associated with academic outcomes (e.g. Moreira, Dias, Vaz, & Vaz, 2013), a similar perspective has not been previously adopted in relation to SE. Furthermore, whereas the role of SE for self-regulated learning in relation to students' wellbeing has been widely examined, there is a general lack of empirical evidence regarding emotional and social SE. To the best of our knowledge, no previous studies have investigated the concurrent and longitudinal relationship between SE configurations and wellbeing by using a person-centred approach.

1.1. Self-efficacy and wellbeing in academic settings

Self-efficacy, namely domain-specific 'belief in one's capabilities to organise and execute the courses of action required to produce given attainments' (Bandura, 1997, p. 3), can be viewed as the expression of self-regulatory skills in specific domains of individual functioning. In this study, we focused on SEs associated with three specific self-regulatory competences: emotional, social, and self-regulated learning.

Emotional SE refers to perceived capabilities in managing negative emotions associated with stressful events, ranging from fear and anxiety to self-conscious emotions such as shame and guilt (Caprara, Di Giunta, Pastorelli, & Eisenberg, 2013). Individuals reporting high levels in this domain are more likely to cope proactively with difficulties and life challenges, are more satisfied (Lightsey, Maxwell, Nash, Rarey, & McKinney, 2011), and are less depressed (Caprara, Gerbino, Paciello, Di Giunta, & Pastorelli, 2010). Overall, researchers have generally investigated this dimension within the general population, leaving quite unexplored the specific academic context and the role of emotional SE in relation to students' wellbeing. However, we consider this dimension as pivotal. Indeed, students are under near-constant pressure and evaluation, and they are required to handle anxiety related to deadlines, exams, and so on.

Social SE refers to perceived capabilities to build adaptive relationships with others, establish a friendship network, and be capable of self-promotion (Hermann & Betz, 2006). Within the academic setting, social SE has been proved to hinder students' depression (Wei, Russell, & Zakalik, 2005) and foster the pursuit of their goals (Zajacova et al., 2005). Students with high social SE have higher capabilities to identify external resources to cope with stress (Smith & Betz, 2002). In particular, the perceived capability to pursue help-seeking and help-giving can be particularly critical to maintain effort and motivation in difficult times (Poortvliet & Darnon, 2014). Overall, although an SE dimension related to social resource seeking was included in the original Bandura scale (Bandura et al., 1996), few studies have explored it in the academic context in relation to student wellbeing.

SE in self-regulated learning refers to students' beliefs about their abilities to regulate learning processes and actively orient courses of actions towards satisfactory academic results consistently with standards (Zimmerman, 2000). Students with high SE in this domain perceive difficulties as opportunities to improve and develop their skills, and they are less prone to perceive academic pressures as sources of stress (Chemers et al., 2001). Overall, results have consistently highlighted its relevant role in relation to university students' wellbeing.

2. The present study

The present study, using a person-centred approach, investigates the SE configurations and tests their concurrent, longitudinal, and discriminant validity. Based on previous studies on personality types and adjustment, we anticipated that the optimal number of groups will range from three, which represents the most frequent solution in the literature (Asendorpf, 2015), to five clusters, as found in some studies

(Herzberg & Roth, 2006). Given the domain-specific nature of SE, we hypothesised some clusters to have high levels in one domain along with low levels in others. However, because SEs are expected to be highly correlated, we also anticipated to identify two opposite clusters characterised by high and low levels in all of the domains. Moreover, as anticipated above, we expected these clusters to show different wellbeing profiles.

3. Method

3.1. Participants

Participants were nursing students involved in a broader ongoing two-cohort longitudinal project. For the purpose of the present study, two-time data points were considered. The first wave corresponds to the beginning of the first university year (T1), and the follow-up occurred at the beginning of the second year (T2). For both cohorts, all students enrolled in the first year were invited to participate (Cohort 1 T1 N = 1072, Cohort 2 T1 N = 999). T1 was gathered in 2011 for Cohort 1 (870 participants, response rate = 81.2%, 66.3% females, $M_{age} = 21.84$, $SD_{age} = 4.65$), and in 2012 for Cohort 2 (780 participants, response rate = 78.1%, 66.9% females, $M_{age} = 21.70$, $SD_{age} = 4.46$). The participation rate after one year was 57.6% of the total Cohort 1 (499 participants, 70.3% females, $M_{age} = 21.68$, $SD_{age} = 4.59$) and 60.4% for Cohort 2 (471 participants, 69% females, $M_{age} = 21.46$, $SD_{age} = 4.11$). No cohort effects were detected related to demographics.

3.2. Procedure

The research received ethical approval from the review board of the university in which the research took place. Students collectively completed a pencil-and-paper questionnaire after signing an informed consent document. A research assistant was present at each wave to ensure setting control. Students' participation was rewarded by a brief tailored personality profile to be discussed upon request in a meeting with a registered psychologist.

3.3. Measures

SEs were measured at T1 and depression and life satisfaction at both T1 and T2.

Emotional SE was assessed by considering two scales. Specifically, we selected 3 items referring to the regulation of anxiety and despondency in the face of difficulties (Caprara & Gerbino, 2001; sample item 'Control anxiety in facing a problem') and 4 items from the Shame/Embarrassment Emotional SE (Caprara et al., 2013; sample item 'Contain your shame after having made a fool of yourself in front of many people').

Social SE was measured by adapting 3 items developed by Bandura et al. (1996; sample item 'Get lecturers to help me when I need it').

SE beliefs for self-regulated learning was measured by 3 items developed by Bandura et al. (1996; sample item 'Get myself to study when there are other interesting things to do').

All SE items were introduced by the stem 'How do you feel able to…', and the response format was on a 5-point scale (from 1 'I am not able at all' to 5 'I am completely able').

Depression was assessed by the 12-item Major Depression Inventory (Bech, Rasmussen, Olsen, Noerholm, & Abildgaard, 2001) on a 4-point Likert scale (from 1 'not at all' to 4 'all the time'). Participants were asked to indicate the occurrence of a list of symptoms during the last two weeks (sample item 'Have you felt lacking in energy and strength?').

Life satisfaction was assessed by 4 items of the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985; sample item 'The conditions of my life are excellent') on a 7-point scale (ranging from 1 'I totally disagree' to 7 'I totally agree').