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NEETs in a rural region of Southern Europe: Perceived self-efficacy, perceived barriers, educational expectations, and vocational expectations

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Abstract

The aim of this research is to understand the influence of demographic and professional experience factors on the self-efficacy and perceived barriers of rural Portuguese youths not in employment, education or training (NEET), as well as on their educational and vocational expectations at age 35. These indicators are involved in the compromise mechanism of choice of the circumscription and compromise theory, a construct that describes the reason why certain vocational alternatives are progressively restricted among young adults. Most of the participants ($n = 137$) were female (62%) and their age ranged from 18 to 30 ($M = 24.88$; $SD = 2.30$).

Findings show that the participants' self-efficacy was positively affected by having a previous job contract, and negatively influenced by longer unemployment periods (> 24 months). Longer unemployment periods also increased the perception of barriers. Educational expectations at age 35 were significantly higher among participants who had completed middle school and marginally lower for those living with their parents, while vocational expectations at age 35 were more conservative among those who had concluded high school. Recommendations are made regarding employment policies as well as training and vocational guidance interventions for NEETs in rural regions.

Keywords: NEET; self-efficacy; barriers; expectations; rural youth

Introduction

The young people not in employment, education or training (NEETs) aged between 15 and 29[1] (Carcillo, Fernandéz, Königs, & Minea, 2015) have been in the spotlight of employment policies. This interest arises from the increasing of NEETs' heterogeneity in developed countries, since the acronym was coined in the United Kingdom, in the late 1990s (Maguire, 2015; Sadler, Akister, & Burch, 2014). Several findings related to the transition to adulthood or the educational and vocational expectations among NEETs have led to criticism of the supposed homogeneity of the group (Görlich & Katznelson 2015; Sadler et al., 2014; Reiter & Schlimbach, 2015). Some authors (e.g. Görlich & Katznelson, 2015) argue that the label NEET has oversimplified the depiction of these youths as a homogeneous (sub)urban group struggling with an accumulation of personal, social and/or educational risks.

Very little attention has been given to the characterization of NEETs in rural settings. Important efforts, such as those made by Sadler et al. (2014), have helped to systematize the main trends of living as an unemployed, unoccupied youth outside (sub)urban areas. To our knowledge, aside from the work carried out by Sadler et al. (2014), the characterization of rural NEETs' situation has often been driven from an extensive literature focused on the life conditions of vulnerable, marginalized young people living in the countryside. Possibly due to this shortcoming, research recommendations have been issued in order to better understand the particularities of this group across different social backgrounds and geographical areas (Maguire, 2015). Even more striking is the fact that no empirical

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[1] The label NEET will be applied to youths aged 15-29 according to the Organization for Economic Cooperation and Development (OECD). This option is contextually relevant given that Portugal is ranked first among OECD members regarding the numbers of NEETs aged 18-29 years old living with their parents (91%) (Carcillo et al., 2015). This figure means that the transition to an independent life among Portuguese NEETs comes in their late 20's, especially in rural areas, due to precarious employment or unemployment in these regions (Sadler et al., 2014).

research about this group has been conducted in rural areas of Southern European countries, where higher rates of NEETs can be found (Carcillo et al., 2015).

The present study is as an attempt to reply to the scarcity of research into the features of NEETs in rural areas and its goal is to understand how main demographic (e.g. age) and professional experience factors (e.g. duration of unemployment) influence NEET's self-efficacy, perceptions of barriers as well as their educational and vocational expectations at age 35. These indicators are involved in the compromise mechanism of choice, which describes how a young adult progressively restricts his/her vocational choices. In order to accomplish this goal in a meaningful way, this study was conducted in the Azores Islands, a peripheral rural region of Portugal that currently presents the highest rates of NEETs in the country (Rowland, Ferreira, Vieira, & Pappámikail, 2014).

NEETs in rural regions: what do we know so far?

NEETs in rural areas deal with a systematic structural exclusion involving increased social, educational, economic, and career development risks, which may ultimately undermine the transition to a successful adulthood. From a social standpoint, young people in these regions are more often involved in the fulfillment of family needs with or without an economic value, including the role of care providers, especially in the case of girls (Sadler et al., 2014). This trajectory is related to denser informal social networks, responsible for a great deal of cultural transmission in rural areas, thus undermining the autonomy of their members and the adherence to urban values (Meece, Hutchins, Byun, Farmer, Irvin, & Weiss, 2013).

Despite improvements in some educational indicators, such as the decrease of truancy rates compared to youths in urban and suburban areas (Meece et al., 2013), youths living in rural regions also depict lower levels of achievement (Sadler et al., 2014), greater

resistance to return to school in case of dropping-out (Singh & Dika, 2003), lower

educational expectations (Schmitt-Wilson & Welsh, 2012), and greater mismatch between

educational aspirations and actual qualifications, especially among boys (Sadler et al.,

2014). Most of these educational shortcomings are attributed to poorer teaching (Meece et

al., 2013), greater ethnic and social homogeneity (Singh & Dika, 2003), and greater

parental depreciation of education (Sadler et al., 2014).

NEETs in rural regions also seem to be more exposed to economic and career

development risks, since they have a greater chance of being poor (Sadler et al., 2014),

financially dependent on their parents (Carcillo et al., 2015), and more exposed to

unemployment and precarious work (Zipin, Sellar, Brennan, & Gale, 2015). This

constellation of problems is determined by the lower educational achievement of youths in

these regions (Sadler et al., 2014) and by dramatic changes in the economic structure, such

as the fast relocation of industrial production to urban areas and developing countries

(Zipin et al., 2015), a subsequent reduction in the demand for undifferentiated

professionals (Sadler et al., 2014) and a decrease of experienced mentoring adults for

youngsters transitioning to the labor market in the countryside (Zipin et al., 2015).

The situation of NEETs in The Azores Islands

To a great extent, the above cited findings not only indirectly describe the life

conditions of NEETs, but also circumscribe it to Anglo-Saxonic countries. In Southern

European countries, such as Portugal, NEETs constitute a social group demanding the

attention of decision-makers as well. In 2013, 14% of the Portuguese youths aged between

15 and 24 were not in employment, education or training, from which 9.2% were

unemployed and 4.8% were inactive (Rowland et al., 2014). This rate is slightly higher

than the European Union average for NEETs (13.0%), but is still distant from the rates of

other Southern European countries such as Italy (22.2%), Bulgaria (21.6%), or Greece (20.4%). However, there are important disparities across Portugal, with urban regions such as the Greater Lisbon Area showing lower numbers of NEETs (15.1%) compared to other regions, such as The Azores Islands, where rates are worrisome (24.1%). These rates are underestimated, due to the age criteria in use, excluding all youths aged between 25 and 29 who are not employed or involved in the education/training systems (Carcillo et al., 2015).

In The Azores Islands, the unemployment rates among youths aged 15 to 24 rose from 12.9% in 2008, to 41.5% in 2014, affecting more women (52.4%) than men (47.6%). For the same period, unemployment rates increased from 6.5% to 18.7%, in the group aged 25 to 34, and continued to be higher among women (52.7%). Although the total number of unemployed in The Azores Islands has increased, the proportion of youth unemployment (< 34 years old) has shown a slight decrease: in 2008, it represented 52.9% and in 2014 this rate was situated at 48.8% (Instituto do Emprego e Formação Profissional, 2015). In addition, the region struggles with very low levels of education. The rate of conclusion of middle school is the lowest in the country (72.1%). The same trend is verified with regards to high school (60.4%), which is the second lowest rate among Portuguese regions (Conselho Nacional da Educação, 2014).

These trends in employment and education were accompanied by recent changes in the regional job market structure. In 2009, the primary sector represented 13% of the region's employment, while the secondary sector covered 24% and the tertiary sector represented 63%. In 2014, the primary sector continued to represent 13% of the whole region's employment, while the secondary sector covered 16% and the tertiary sector increased its quota up to 72%. These changes are explained by the rising numbers of unemployment, but also by a dramatic reduction in demand from the construction sector,

which lost more than 10 000 jobs in 5 years (Serviço Regional de Estatística, 2015), a figure that represents 10% of the region's total employment.

NEETs and the compromise of choice mechanism

The resources deprivation in rural regions represents a significant decrease of social, educational, and employment opportunities for NEETs. These youths are, therefore, in greater risk of reducing their expectations. Theory of circumscription and compromise (Gottfredson, 2002) offers a useful framework to interpret the vocational restrictions of young adults pressured by contextual factors. This theory is based on two key concepts. The first one, the circumscription mechanism, describes a primitive definition of vocational preferences across childhood and adolescence, corresponding to a delimitation of occupational preferences in a zone or territory of acceptable alternatives. These preferences are influenced by gender occupational stereotypes, maturation across childhood and adolescence, a fit between individual abilities and social environment, and vocational barriers (Gottfredson, 2002).

In early adulthood, the zone of vocational preferences is narrowed through a process of compromise. Compromise consists in personal investment in some areas seen as more realistic and accessible. This individual adjustment results in dropping-out occupational preferences considered aspirational or idealistic. The compromise process involves the definition of conditional occupational scenarios, an option for "good enough" solutions, and adjustment to those solutions. This process is orientated by three key elements of the compromise mechanism: perceptions of self-efficacy, existent barriers, and expectations. These elements are shaped by gender-based occupational stereotypes, development/age, given that the restriction of options is more intense during early adulthood, as well as by professional accessibility to a given preference based on factors such as unemployment or prior professional experiences (Gottfredson, 2002).

Perceived self-efficacy, perceived barriers, educational expectations and vocational expectations

A disperse literature has described how the core elements of the compromise mechanism tend to vary according to demographic and employment experience factors. Among them is self-efficacy, which has generally been defined as the belief that one can be successful by generating the desired outcomes for a determined task. Self-efficacy may be divided in general self-efficacy about one's ability to be successful across different areas/activities, and specific self-efficacy, seen as task-related perception of competency (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001).

Women's self-efficacy perceptions tend to be more important in vocational decision-making compared to men's. These perceptions grow steadily from childhood to early adulthood, but become worst during transitions, especially in the case of vulnerable populations, such as youths exposed to individual or social risks (Bandura, 1997). Likewise, higher educational levels predict more positive perceptions about personal skills (Bandura et al., 2001). The associations between professional trajectories and self-efficacy have also drawn attention from researchers. In the context of this study, it is particularly important to note that longer unemployment periods predict worst self-efficacy perceptions among youths aged 21 to 31 years old (Mortimer, Kim, Staff, & Vuolo, 2016).

The perception of barriers refers to the constraints on current or future vocational development identified by individuals, as opposed to objective barriers such as actual educational level or salary (Albert & Luzzo, 1999; Lent, Brown, & Hackett, 2000). Previous findings have demonstrated that barriers are perceived differently by men and women. Women tend to perceive more barriers to their vocational development than men (McWirther, 1997; McWirther, Torres, Salgado, & Valdez, 2007). At the same time, women seem to underline environmental barriers, such as financial constraints or

discrimination, while men seem more sensitive to individual barriers, such as motivation (McWirther et al., 2007). Among young job seekers and professionals near the end of their careers, those who do not succeed in fulfilling their educational expectations in school denote a more intense perception of barriers (Messersmith & Sculenberg, 2008). Professional trajectory variables such as access to a job contract or professional experience may also be important predictors of the subjective perception of barriers. This is particularly true for marginalized groups who lack access to quality education, vocational guidance, and consistent professional experiences (Diemer et al., 2010).

Expectations are future-oriented cognitions about plans which may be fulfilled in a given life domain, such as the educational and vocational areas (Beal & Crockett, 2010; Messersmith & Schulenberg, 2008). Thus, what individuals expect differs from what they aspire to. Aspirations involve the realm of possible options, while expectations refer to the most likely outcome that an individual pursues (Gottfredson, 2002).

Educational expectations are not similar across gender groups (Tynkkynen, Solvanen, & Salmela-Aro, 2012): while some findings report that men denote higher educational expectations (Mau & Bikos, 2000), others show that women denote better educational prospects, especially in the transition to adulthood (Tynkkinen et al., 2012). Age may also affect educational expectations, especially in the transition to adulthood, when they tend to become more negative and unstable (Johnson & Reynolds, 2013), although opposite findings have been established (Tynkkinen et al., 2012).

Vocational expectations are also mixed across gender groups, despite some findings showing better vocational prospects among women (Mau & Bikos, 2000; Mello, 2008). Their stability across age is more visible among women as well, especially in the transition from adolescence to adulthood (Mello, 2008). In turn, lower educational level and achievement tend to predict lower vocational expectations (Diemer et al., 2010). Moreover,

unemployment, precarious work or reduced professional experience undermine vocational expectations, leading to a decreased effort to improve personal qualifications (Gushue et al., 2006).

The present study

This study was conducted to understand how demographic and professional experience variables influence NEETs' perceived self-efficacy, perceived barriers, educational expectations, and vocational expectations in a peripheral rural region of Portugal, the Azores Islands. Following the literature, four hypotheses were tested. It was hypothesized that participants who are female, younger (aged 18 to 24) and had a higher education degree, living on their own and benefiting from unemployment allowance, as well as those participants who have had a previous job contract, and more recently unemployed (< 12 months) would denote: (a) higher self-efficacy; (b) lower perceptions of barriers; (c) higher educational expectations at age 35; and (d) higher vocational expectations at age 35. The dependent measures were chosen as they are implicated in the compromise mechanism, a process which describes how vocational choices become progressively restricted in the transition to adulthood (Gottfredson, 2002). The chosen demographic and employment predictors were deemed appropriate because the compromise mechanism of choice described in the circumscription of choice and compromise theory – according to disperse, but mounting evidence - depict that the key elements of the compromise mechanism (self-efficacy, perceived barriers, as well as educational and vocational expectations) are shaped by this type of factors. Understanding the compromise of choice mechanism among rural NEETs is relevant, given that these youths are under a greater pressure to restrict their choices, considering the economic, social, and cultural limitations of rural areas.

Method

Participants

The study involved 137 participants registered in a local public employment agency. This option asserted that youths were all above 18 years old and were legally eligible to work and, thus, able to characterize employment predictors, and that none of them was employed or enrolled in any type of vocational training or educational program, according to NEET's definitional criteria. Participants' age ranged from 18 to 30 ($M = 24.88$; $SD = 2.30$). Eighty-five of them (62%) were females. Regarding their education level, eighty-seven (63.5%) of the participants had concluded high school, 31 (22.6%) had finished middle school, while 19 (13.9%) had a higher education degree. At the time data was collected, 94 (68.6%) of these youths were living with their parents, 27 (19.7%) were living elsewhere (with their boyfriend/girlfriends' parents' or with other relatives) and 16 (11.7%) lived in their own household.

Regarding their professional experience, 64 (46.7%) of the participants had worked for 24 months or less, 44 of the participants (32.1%) had more than 24 months of work experience and 29 (21.2%) had never had a job. Seventy-eight (56.9%) of the participants had signed at least one job contract; seventy-two of the participants (52.6%) had been unemployed for more than 12 months. The majority of the participants (74.5%) had never received unemployment benefits.

Measures

Dependent variables

Dependent variables were examined by using questionnaires. *Self-efficacy* was assessed with the Portuguese version (Pais-Ribeiro, 1995) of the Self-Efficacy Scale (SES) (Sherer et al., 1982). This instrument assesses general self-efficacy and includes 17 items

organized in three dimensions: agency and persistence (6 items, 4 of them reversed, exemplary quote: "When I make a plan, I am sure I will implement it"), efficacy towards adversity (5 items, 4 of them reversed, "I give up if something seems very difficult to achieve") and social efficacy (6 items, 1 of them reversed, "It is hard for me to make new friends"). The items are rated in a 7-point Lickert scale from 1 (*Totally disagree*) to 7 (*Totally agree*). Total scores may range from 17 to 119 points. Higher scores indicate greater levels of self-efficacy. The Portuguese version of the SES denoted acceptable levels of internal consistency for the whole scale ($\alpha = .84$) (Pais-Ribeiro, 1995), thus supporting its use as a whole measure of general self-efficacy. The SES denoted an adequate level of internal consistency ($\alpha = .82$) for the whole scale in the present study.

The perception of barriers was examined by using an adapted version of the Barriers to Accomplish Vocational Goals Scale (BAVCS). The BAVCS was originally developed in the Portuguese language (Souza, 2011). This instrument consists of 26 items (exemplary quote: "I do not have enough money to go to college"). The items are rated in a 5-point Lickert scale, ranging from 1 (*It does not affect me at all*) to 5 (*It affects me completely*). Total scores may vary between 26 and 130 points. The level of internal consistency for this instrument was not available. However, the BAVCS denoted an adequate level of internal consistency ($\alpha = .82$) for the whole scale in this study.

Participants' were asked directly about their educational expectations at age 35. Their answers were coded according to the Portuguese levels of educational certification as follows: (0 = *4th grade*; 1 = *6th grade*; 2= *9th grade*; 3= *12th grade*; 4= *bachelor degree*; 5= *Master degree*; 6 = *PhD*). Afterwards, for analytical purposes, the variable was recoded as 0 = *similar educational level*, and 1 = *improvement of educational level*.

The participants' vocational expectations at age 35 were coded by comparing the desired profession to the level of required qualifications. According to those criteria, two

codes were created: 0 = *the expected profession requires a level of qualifications already attained,* and 1 = *the expected profession requires a higher level of qualifications*. Only these two codes were created, because none of the participants denoted a lower vocational expectation at age 35 compared to their current level of qualification.

Predictors

Two sets of predictors were included in the analyses. Five demographic variables were regarded in this study and coded as follows: (a) gender (0 = *male*; 1 = *female*); (b) age (0 = *18 to 24 years*; 1 = *25 to 30 years*); (c) educational level (0 = *middle school*; 1 = *high school*; 2 = *higher education*); (d) household (0 = *living with parents*; 1 = *other*; 2 = *living in own household*); and (e) unemployment benefits (0 = *never received unemployment benefits*; 1 = *received unemployment benefits previously*). Three variables describing the participants' professional experience were also considered and coded as follows: (a) unemployment benefits (0 = *no*; 1 = *yes*); (b) previous job contract (0 = *no contract*; 1 = *at least one job contract*); (c) duration of unemployment (0 = *less than 12 months*; 1 = *more than 12 months*; 2 = *more than 24 months*).

Procedures

A total number of 152 youths, indicated by an employment agency of The Azores Islands, were invited to collaborate in this study; 137 delivered a written consent to participate. A collective administration of the study's protocol was conducted in small groups (10 to 15 participants), at the beginning of a 90-minute briefing session about self-employment offered by a community-based project dedicated to the improvement of the social and professional integration of NEET youths. Data collection involved the explanation of research goals, and reading aloud the instructions of each questionnaire. The

participants had 20 minutes to complete the survey. Data collection occurred between September and November of 2015.

Data Analysis

Four hierarchical regression analyses were conducted using SPSS 22.0. The analyses were made to assess the influence of demographic (gender, age, educational level, household situation and unemployment benefits) and professional experience factors (previous contract, work experience and time of unemployment) on each of the selected dependent variables. In the case of self-efficacy and perception of barriers, data was examined by using hierarchical multiple linear regression, given that both dependent variables were continuous. In the case of educational expectations and vocational aspirations at age 35, multiple hierarchical logistic regression was used, because both of these variables were categorical. For each of the variables, two models were tested. Model 1 regressed the selected dependent variable into the socio-demographic predictors. Model 2 regressed the dependent variable of interest on the socio-demographic as well as on professional experience predictors. Table 1 depicts the results for the correlational analysis that supported multiple regression.

Results

The percentage of missing values was low ($< 2.2\%$). Little's missing completely at random (MCAR) tests were conducted for each of the variables for which missing values were detected. All the tests showed non-significant patterns of missing values, thus demonstrating that these were randomly distributed. These values were replaced using expectation-maximization technique.

Subsequently, a series of Levene's test were conducted, in order to verify the homogeneity of variances of self-efficacy (M = 79.16; SD = 13.05) and perception of barriers (M = 56.32; SD = 13.86) across each of the predictors. This procedure was implemented because hierarchical multiple regression requires a normal distribution of the dependent values across the selected predictors (Aiken & West, 1991). These tests were non-significant, corroborating that both variables denoted a normal distribution across the socio-demographic and professional record variables entered in the models.

[Insert Table 1 approximately here]

Linear regression analysis of the effects of socio-demographic predictors on the participants' self-efficacy (Model 1) revealed a non-significant model. Model 2, which included both socio-demographic and employment predictors, showed to be significant, $F(10, 126)$ = 2.85, $p < .01$, and explained 18% of the variance (R^2 = .18; $p < .01$). According to this model, NEETs living on their own, compared to those living with their parents, depicted lower levels of self-efficacy (β = -.24; $p < .05$), seemingly to those who were unemployed for more than 24 months (β = -.26; $p < .01$). Those with the experience of, at least, one job contract presented higher levels of self-efficacy compared to those who never had a job contract (β = .21; $p < .05$).

Linear regression analysis of the effects of socio-demographic predictors on the participants' perception of barriers (Model 1) revealed a non-significant model. Model 2, which included both socio-demographic and professional record predictors, showed to be significant, $F(10, 126)$ = 2.26, $p < .05$, explaining 15% of the variance (R^2 = .15; $< .05$). In general, socio-demographic and professional record predictors did not influence a significant variation in the participants' perceptions of barriers, with one exception: participants who were unemployed for a longer period (> 24 months) denoted a greater

perception of barriers compared to those presenting shorter periods of unemployment (β = .26; p < .01).

Multiple hierarchical logistic regression analysis of educational expectations at age 35 revealed that Model 1 was statistically significant, X^2 (6, 130) = 33.62, p < .001, and accounted for 29% of the variation of the results on the expected educational levels (Nagelkerke R^2 = .29; p < .001). The results show that the participants who completed middle school were not significantly interested in improving their educational level (β = -2.06; p < .01), compared to the remaining participants. Model 2 for educational expectations at age 35 was also statistically significant X^2 (9, 128) = 35.76, p < .001, and accounted for 31% of the variation of the results on the expected educational levels (Nagelkerke R^2 = .31; p < .001). According to this model, participants who had only completed middle school (β = 1.96; p < .01) expected to improve their educational level, in comparison with the remaining participants. Similarly, the participants living with their parents had a marginally significant expectation of improving their educational level when compared to those who were living in their own household, (β = .89; p < .10).

Multiple hierarchical logistic regression analysis of vocational expectations at age 35 revealed that Model 1 was statistically significant, X^2 (6, 130) = 12.81, p < .05, and accounted for 13% of the variation of the results on the expected vocational level (Nagelkerke R^2 = .13; p < .05). Findings show that the participants aged 18 to 24 depict a significant expectation of having a more demanding profession at age 35 compared to those participants aged 25 to 30 (β = 1.39; p < .05). In addition, participants who have completed high school had a marginally higher chance of expecting to have the same level of professional demand at age 35 compared to those who completed middle school (β = -.97; p < .05). Model 2 including both demographic and employment predictors was not statistically significant. Tables 2 and 3 synthesize the results for the regression analyses.

[Insert Tables 2 and 3 approximately here]

Discussion

This research assessed the influence of demographic and employment factors on rural NEETs' perceived self-efficacy, perceived barriers, as well as on their educational and vocational expectations at age 35. This goal was based on the need to better understand the compromise of choice mechanism, a process that describes how vocational choices become progressively more restricted in the transition to adulthood (Gottfredson, 2002). The need for this work is sustained by the scarcity of studies about the situation of NEET groups in rural regions, especially in Southern European countries (Carcillo et al., 2015; Maguire, 2015; Sadler et al., 2014), as well as by the need to understand which demographic and employment factors may be involved in the restriction of choices among these youths facing greater challenges. The study was conducted in The Azores Islands, a peripheral rural region of Portugal, which presents the most significant rates of NEETs in the country (Rowland et al., 2014), based on four hypotheses derived from the existent literature. The findings are only partly consistent with the four research hypotheses.

Firstly, the participants' self-efficacy prospects were more directly associated with employment predictors than with demographic factors. Indeed, stronger self-efficacy was related to having had, at least, one job contract. In turn, lower levels of self-efficacy were predicted by a longer period of unemployment (> 24 months). Demographics only predicted worse self-efficacy rates among participants living in their own household. These findings confirm that subjective assessment of competence, one of the core elements of the compromise mechanism, is undermined by experiences of unemployment or precarious work among these participants (Mortimer et al., 2016). Alongside this, the short-term deleterious effects of unemployment on self-efficacy prospects seem to be worse among

those participants living in their own household. This is an unexpected finding, as greater autonomy is usually related to greater self-efficacy. It may be, however, that in rural areas the opportunities for enacting personal skills and, thus, creating a sense of competence, are more dependent on activities shared with parents and family. This includes the provision of care, especially in the case of girls; or the involvement in activities with direct economic value, such as small family businesses in the primary sector, in the case of boys (Sadler et al., 2014).

Secondly, the chosen demographic and employment factors did not show a significant relation with the participants' perception of barriers, another core element in the compromise mechanism, with one exception: greater unemployment duration (> 24 months) contributed to explain greater perception of barriers. This result indicates that long-term unemployed youths may be more negative or more unaware of the constraints of their situation. This general absence of significant connections between predictors and the participants' perception of barriers may follow a tendency for vulnerable young people in general to minimize the influence of cultural, social, and economic barriers over (un)successful vocational trajectories (Görlich & Katznelson, 2015). This is a pertinent finding, given that rural youths tend to face a greater number of objective barriers to vocational development (Ali & Menke, 2014). In these circumstances, many barriers may not be acknowledged as actual limitations to vocational development, biasing the compromise mechanism of choice.

Thirdly, it was found that those participants who had a lower educational level (middle school) were less likely to expect an improvement of their education at age 35, compared to those who had completed high school. In the case of those who already had a higher education degree, it is feasible to assume that their immediate expectations are more related to finding a job. However, in the case of those depicting an intermediate

educational level, their unchangeable educational expectations may be affected by developmental factors, such as the transition to adulthood among those who have just finished high school (Messersmith & Schulenberg, 2008) or by a greater socio-economic vulnerability (Tynkkinen, 2012). To a great extent, this is confirmed by the fact that those living with their parents also presented marginally significantly worse prospects regarding the improvement of their educational level at age 35 compared to those living on their own. Thus, greater parental support may also be translated into a greater depreciation of education, which is common in rural areas (Meece et al., 2013; Sadler el al., 2014).

Fourthly, the group of younger participants (aged 18 to 24) showed a significant expectation of having a more demanding profession at age 35 compared to older participants (aged 25 to 30). This evidence shows that, despite more recurrent barriers to vocational development in rural regions (Diemer et al., 2010), younger participants in this study maintain positive prospects regarding their educational and vocational development careers and do not over restrict their choices. This is surely good news for local policy makers. Conversely, participants who had completed high school denoted a marginally lower chance of expecting to improve the professional demandingness at age 35 compared to those who had completed middle school. This result poses important challenges at both decision-making and intervention levels, because the participants with an intermediate level of education are the most numerous group in this study and are also those who denote the worst educational and vocational prospects. Although the more conservative educational and vocational expectations of this particular group do not replicate the recurrent mismatch between actual qualifications and vocational expectations and aspirations in rural areas (Sadler et al., 2014; Schmitt-Wilson & Welsh, 2012), they may depict a general disbelief in the potential of education as a social elevator, which is demonstrated by the low conclusion rates of middle and high school in The Azores Islands

(Conselho Nacional da Educação, 2014). Such an assertion may also reflect the difficulties in accessing higher education in a peripheral rural region. At a time in which lifelong learning is a well-established educational paradigm across European countries, this finding proposes that more resources and more flexible mechanisms may be needed to facilitate the transition to university in more deprived areas.

Two final remarks must be made. Firstly, the amount of variability explained by the selected predictors is lower in the case of educational and vocational expectations, implying that contextual factors, such as the job market structure, may explain an important part of how the participants manage this aspect of the compromise of choice mechanism. Secondly, gender differences that are theoretically proposed by the theory of circumscription and compromise of choice (Gottfredson, 2002) and replicated in several studies were not sustained by this research. Gender may be less pivotal in this developmental stage, compared with an initial vocational development stage, when the circumscription of vocational options is guided by gender stereotypes. In addition, although distinctions between men and women in self-efficacy, perception of barriers (McWirther, 1997) and expectations (Tynkkinen et al., 2012) have been found, lack of gender predictive power for any of the compromise of choice variables may reflect that the differences between female and male youths are attenuated in rural areas, because vocational choices are much scarcer or restricted to undervalued areas.

Implications, recommendations, and limitations

The above-mentioned results may inform employment policies, as well as interventions aimed at NEETs in rural regions, namely in The Azores Islands. These findings show that improving job opportunities may be a prerequisite for more positive self-efficacy perceptions in this group. The promotion of employment policies, particularly

those aimed at raising the number of job offers in the private sector, such as tax breaks or youth guarantee programs, are therefore recommendable (Maguire, 2015), as these measures have proven to be more efficient in reducing unemployment among NEETs than employment initiatives in the public sector (Carcillo et al., 2015). Such measures may have an indirect, but still important impact on employment, self-employment and reemployment rates, as more positive self-efficacy prospects are associated with an enhancement of these indicators (e.g. Laguna, 2013).

The present findings also stress the need to adapt interventions at both training and vocational guidance levels for NEETs in rural regions. More flexible training proposals, which facilitate an actual overlap between the training system and the job market (Strákova, 2015) or a greater involvement of universities in rural areas with training systems seem highly recommendable, especially to raise the educational and vocational expectations of those with intermediate levels of education. In addition, both individual and group counseling may have to integrate specific measures to help NEETs become more aware of objective and subjective vocational barriers in rural contexts, particularly in this research context (Albert & Luzzo, 1999). This may sustain a more accurate delimitation of these youths' degree of vocational compromise, based on an analysis of their individual skills and environmental barriers, together with preventing negative or distorted self-evaluations of (un)successful trajectories. In addition, it is important that vocational counselors help NEET groups to realize the importance of better qualifications, and how this may have a positive impact on vocational development, always acknowledging the demands and limitations of the local job market.

From a research implications' perspective, this study is limited to the analysis of individual predictors of NEETs' vocational choices in rural regions. This analysis was theoretically-based, but it is only a starting point. Further efforts should balance the

examination of both individual and contextual sources of NEETs' vocational choices (St. Clair & Benjamin, 2011), through a wider analysis involving other key variables, such as relational predictors (including the quality, type, and coordination of social support within their social networks), job market predictors (such as the ability of employment services and companies to match vocational interests with local/resources and opportunities) and cultural predictors (e.g. individual *vs* collectivistic cultural orientations in a given rural region).

The present research has methodological and generalization limitations. From a methodological point of view, the participants were the only source of information. This method is vulnerable to same-source bias or to the possibility that self-reported data may lead to spurious association between different variables. Thus, new studies involving youths, parents, or vocational counselors are highly recommendable to replicate these findings. In addition, the use of self-reported measures has well-known limitations (e.g. social desirability); moreover, its specific use to assess vocational barriers seems to reduce its perceived impact (Lent et al., 2000). Thus, conclusions about these participants´ perceptions of barriers must be made cautiously. Future studies may reply to this limitation by using both self-reported measures and in-depth interviews. Finally, from a generalization standpoint, it is important to remember that the assessment involved a small number of youths of a specific peripheral Portuguese region. Thus, other NEET groups across rural regions may not replicate the same results.

Conclusion

This study has contributed to the understanding of the influence of demographic and professional experience factors on a group of Portuguese rural NEETs' perceived self-efficacy, perceived barriers as well as on their educational and vocational expectations at

age 35, which are central to the comprehension of the compromise of choice mechanism (Gottfredson, 2002). Overall, NEETs' vocational choices in rural regions rely on a more affluent and stable job market to increase self-efficacy prospects. A more accurate assessment of contextual barriers and the clarification of the importance of education in improving professional prospects may be relevant in promoting accurate/non-restrictive vocational choices among NEETs in rural areas, especially among those who have intermediate levels of education or who are more dependent on their parents.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Albert, K. A., & Luzzo, D. A. (1999). The role of perceived barriers in career Development: A social cognitive perspective. *Journal of Counseling & Development*, *77*(4), 431–436. http://doi.org/10.1002/j.1556-6676.1999.tb02470.x

Ali, S. R., & Menke, K. A. (2014). Rural Latino youth career development: An application of social cognitive career theory. *The Career Development Quarterly*, *62,* 175-186.

Bandura A. (1997). Self-efficacy. New York, NY: W. H. Freeman.

Bandura, A., Barbaranelli, C., Caprara, G. V, & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*, *72*(1), 187–206. http://doi.org/10.1111/1467-8624.00273

Beal, S. J., & Crockett, L. J. (2010). Adolescents' occupational and educational aspirations and expectations: links to high school activities and adult educational attainment. *Developmental Psychology*, *46*(1), 258–265. http://doi.org/10.1037/a0017416

Carcillo, S., Fernandéz, R., Konigs, S., & Minea, A. (2015). *NEET youth in the aftermath of crisis*: Challenges and policies. *OECD Social, Employment and Migration Working Papers*, No. 164, OECD Publishing. http://dx.doi.org/10.1787/5js6363503f6-en

Conselho Nacional da Educação (2014). Estado da educação 2013 [The state of education 2013]. Lisboa: Conselho Nacional da Educação.

Diemer, M. a, Wang, Q., Moore, T., Gregory, S. R., Hatcher, K. M., & Voight, A. M. (2010). Sociopolitical development, work salience, and vocational expectations among low socioeconomic status African American, Latin American, and Asian American youth. *Developmental Psychology*, *46*(3), 619–35. http://doi.org/10.1037/a0017049

Görlich, A., & Katzenelson, N. (2015). Educational trust: relational and

structural perspectives on young people on the margins of the education system.

Educational Research, *57*(2), 201–215.

http://dx.doi.org/10.1080/00131881.2015.1030857

Gottfredson, L. S. (2002). Gottfredson's theory of circumscription, compromise, and self-

creation. In D. Brown (Ed.), *Career choice and development* (pp. 85-148). San

Francisco: Jossey-Bass.

Gushue, G. V, Clarke, C. P., Pantzer, K. M., & Scanlan, K. R. L. (2006). Self-efficacy,

perceptions of barriers, vocational identity, and the career exploration behavior of

latino /a high school students. *Career Development Quarterly*, *54*, 307–317.

http://doi.org/10.1002/j.2161-0045.2006.tb00196.x

Instituto do Emprego e Formação Profissional (2015). Mercado de emprego: Estatísticas

mensais. [Job market: Monthly statistics]. Lisboa: Instituto do Emprego e Formação

Profissional I.P..

Laguna, M. (2013). Self-efficacy, self-esteem, and entrepreneurship among the

unemployed. *Journal of Applied Social Psychology, 43*, 253-262.

Lee, J. O., Hill, K. G., & Hawkins, J. D. (2012). The role of educational aspirations and

expectations in the discontinuity of intergenerational low-income status. *Social Work

Research*, *36*(2), 141–151. http://doi.org/10.1093/swr/svs025

Lent, R. W., Brown, S. D., & Hackett, G. (2000). Contextual supports and barriers to

career choice: A social cognitive analysis. *Journal of Counseling Psychology*, *47*(1),

36–49. http://doi.org/10.1037/0022-0167.47.1.36

Maguire, S. (2015). NEET, unemployed, inactive or unknown – why does it matter?

Educational Research, *57*(2), 121–132.

http://doi.org/10.1080/00131881.2015.1030850

Mau, W. C., & Bikos, L. H. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. *Journal of Counseling & Development*, *78*, 186–194. http://doi.org/10.1002/j.1556-6676.2000.tb02577.x

McWhirter, E. H. (1997). Perceived barriers to education and career: Ethnic and gender differences. *Journal of Vocational Behavior*, *140*(50), 124–140. http://doi.org/10.1006/jvbe.1995.1536

McWhirter, E. H., Torres, D. M., Salgado, S., & Valdez, M. (2007). Perceived barriers and postsecondary plans in Mexican American and White Adolescents. *Journal of Career Assessment*, *15*(1), 119–138. http://doi.org/10.1177/1069072706294537

Meece, J. L., Hutchins, B. C., Byun, S., T. W., F., Irvin, M. J., & Weiss, M. (2013). Preparing for adulthood: A recent examination of the alignment of rural youth's future educational and vocational aspirations. *Journal of Educational and Developmental Psychology*, *3*(2), p175. http://doi.org/10.5539/jedp.v3n2p175

Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology*, *44*(4), 1069–1080. http://doi.org/10.1037/0012-1649.44.4.1069

Messersmith, E. E., & Schulenberg, J. E. (2008). When can we expect the unexpected? Predicting educational attainment when it differs from previous expectations. *Journal of Social Issues*, *64*(1), 195–212. http://doi.org/10.1111/j.1540-4560.2008.00555.x

Mortimer, J. T., Kim, M., Staff, J., & Vuolo, M. (2016). Unemployment, parental help, and self-efficacy during the transition to adulthood. *Work and Occupations, 43*(3) 434-465. Doi: 10.1177/0730888416656904

Pais-Ribeiro, J. (1995). Adaptação de uma escala de avaliação da auto-eficácia geral [Adaptation of general self-efficacy assessment scale]. In: L. Almeida e I. Ribeiro

(Eds.). *Avaliação psicológica: Formas e contextos* [Psychological assessment: Forms and contexts]. (pp.163-176). Braga: APPORT. doi:10.13140/2.1.3971.162

Reiter, H., & Schlimbach, T. (2015). NEET in disguise? Rival narratives in troubled youth transitions. *Educational Research*, *57*(2), 133–150. http://doi.org/10.1080/00131881.2015.1030851

Rowland, J., Ferreira, V. S., Vieira, M. M., & Pappámikail, L. (2014). *Nem em emprego, nem em educação ou formação: Jovens NEEF em Portugal numa perspetiva comparada.* [Not in employment, education or training: NEET youth in Portugal in a comparative perspective]. Lisboa: Observatório Permanente da Juventude.

Sadler, K., Akister, J., & Burch, S. (2014). Who are the young people who are not in education, employment or training? An application of the risk factors to a rural area in the UK. *International Social Work*, *March*, 1–13. http://doi.org/10.1177/0020872813515010

Schmitt-Wilson, S., & Welsh, M. C. (2012). Vocational knowledge in rural children: A study of individual differences and predictors of occupational aspirations and expectations. *Learning and Individual Differences*, *22*(6), 862–867. http://doi.org/10.1016/j.lindif.2012.06.003

Serviço Regional de Estatística (2015). Inquérito regional ao emprego: Primeiro trimestre. [Regional inquiry of Employment: First quarter]. http://estatistica.azores.gov.pt/upl/%7B9cf8bc4b-f8df-4f3c-9138-1b5e92ed4926%7D.pdf

Sherer, M., Madux, J.E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R.W. (1982). The self-efficacy scale: Construction and validation. *Psychological Reports, 51*, 663-671.

Singh, K., & Dika, S. (2003). The educational effects of rural adolescents' social networks. *Journal of Research in Rural Education*, *18*(2), 114–128.

St Clair, R., & Benjamin, A. (2011). Performing desires: the dilemma of aspirations and educational attainment. *British Educational Research Journal*, *37*(3), 501–517. http://doi.org/10.1080/01411926.2010.481358

Souza, L. S. (2011). Concepções dos alunos com necessidades educativas especiais acerca das aspirações, expectativas e obstáculos ao seu desenvolvimento profissional. [Students' with special needs aspirations, expectations and barrriers to their vocational development] (Master's thesis). Retrieved from http://www.repository.utl.pt/handle/10400.5/2906

Straková, J. (2015). Strong vocational education - a safe way to the labour market? A case study of the Czech Republic. *Educational Research*, *57*(2), 168–181. http://doi.org/10.1080/00131881.2015.1030853

Tynkkynen, L., Tolvanen, A., & Salmela-Aro, K. (2012). Trajectories of educational expectations from adolescence to young adulthood in Finland. *Developmental Psychology*, *48*(6), 1674–85. http://doi.org/10.1037/a0027245

Zipin, L., Sellar, S., Brennan, M., & Gale, T. (2015). Educating for futures in marginalized regions: A sociological framework for rethinking and researching aspirations. *Educational Philosophy and Theory*, *47*(3), 37–41. http://doi.org/10.1080/00131857.2013.839376

Table 1. Correlations between study variables

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Gender	---										
2. Age	-.10	---									
3. Educational level	.11	.47**	---								
4. Household situation	-.14	.03	-.04	---							
5. Unemployment benefit	-.13	.24**	.11	-.01	---						
6. Previous contract	-.10	38**	.29**	-.05	.37**	---					
7. Duration of unemployment	-.19*	.28*	.15	.05	.11	.04	---				
8. Self-efficacy	.06	.14	.18*	.04	.01	.26**	.25**	.19*	---		
9. Perception of barriers	.07	-.07	-.09	-.15	-.20*	-.22**	-.24**	-.16*	-.30**	---	
10. Educational expectations at age 35	.13	-.25**	-.32**	.10	-.04	-.17*	-.20*	-.06	-.01	.04	---
11. Vocational expectations at age 35	.02	-.19*	.08	-.10	.02	.09	.01	-.01	.04	-.02	-0.10

* p < .05; ** p < .01

Table 2. *Multiple hierarchical linear regression analyses predicting self-efficacy and perception of barriers*

	Self-efficacy						Perception of barriers					
	Model 1			Model 2			Model 1			Model 2		
Predictors	B	S.E.	95% C. I.	B	S.E.	95% C. I.	b	S.E.	95% C. I.	B	S.E.	95% C. I.
1. Gender [a]	.01	2.44	[-4.66,5.00]	-.02	2.38	[-5.24,4.20]	.09	2.63	[-2.62,7.80]	.09	2.59	[-2.56,7.67]
2. Age [b]	.09	2.74	[-2.94,7.89]	.13	2.67	[-1.90,8.66]	.02	2.95	[-5.39,6.29]	.02	2.89	[-5.15,6.31]
3. Educational level [c]												
Middle school	-.08	3.23	[-8.78,4.00]	-.04	3.25	[-7.77,5.07]	.15	3.49	[-1.86,11.96]	.13	3.52	[-2.70,11.23]
Higher education	.10	3.36	[-2.97,10.30]	.08	3.21	[-3.40,9.31]	.05	3.62	[-5.30,9.01]	.06	4.48	[-4.66,9.13]
4. Household situation [d]												
Other	-.13	4.08	[-13.26.2.90]	-.11	3.91	[-.12.56,2.92]	.12	4.41	[-3.62.13.81]	.12	4.24	[-3.45,13.34]
Living on their own	-.23	2.95	[-12.37,-.72]	-.24*	2.85	[-12.26,-.97]	.19	3.18	[-.77,11.80]	.15	3.09	[-1.62,10.62]
5. Unemployment benefit [e]				-.12	2.68	[-8.86,1.77]				-.12	2.91	[-9.47,2.06]
6. Previous contract [f]				.21**	2.46	[.55,10.28]				-.12	2.66	[-8.73,1.81]
7. Duration of unemployment [g]												
13-24 months				-.01	2.50	[-5.19,4.69]				.02	2.71	[-4.71,6.00]
>24 months				-.26**	2.90	[-13.96,-2.45]				.26**	3.15	[2.67,15.16]
R^2	.08			.18*			.05			.15*		

Notes: Reference categories for dummy variables include: (a) female; (b) youths aged 25-30; (c) high school; (d) living with parents; (e) never received unemployed benefit; (f) have not had a work contract; (g) > 12 months of unemployment.

[†] $p < .10$; * $p <. 05$; $p < .01$

Table 3. Multiple hierarchical logistic regression analyses predicting educational and expectations at age 35

	Educational expectations at age 35						Vocational expectations at age 35					
	Model 1			Model 2			Model 1			Model 2		
Predictors	B	S.E.	95% C. I.	B	S.E.	95% C. I.	B	S.E.	95% C. I.	B	S.E.	95% C. I.
1. Gender [a]	.54	.44	[.73,4.05]	.57	.45	[.73,4.29]	.05	.47	[.43,2.59]	.07	.47	[.43,2.72]
2. Age [b]	.04	.49	[.40,2.72]	-.02	.50	[.36,2.65]	1.39*	.63	[1.17,13.84]	1.45*	.64	[1.20,14.97]
3. Educational level [c]												
Middle school	2.06**	.77	[1.74,35.40]	1.96*	.79	[1.51,33.32]	-.27	.77	[.29,5.98]	.31	.80	[.29,6.53]
High school	-.97	.55	[.20,1.72]	-.60	.56	[.19,1.65]	-.97[†]	.57	[.13,1.16]	-.92[†]	.58	[.12,1.24]
4. Household situation [d]												
Living with parents	-.77	.55	[.16,1.38]	-.89[†]	.56	[.14,1.23]	.05	.54	[.36,3.02]	.07	.55	[.37,3.13]
Other	.38	.62	[.43,4.91]	.30	.63	[.39,4.67]	-1.47	1.07	[.03,1.90]	-1.59	1.09	[.02,1.73]
5. Unemployment benefit [e]				.63	.51	[.70,5.09]				.09	.54	[.38,3.16]
6. Previous contract [f]				-.22	.46	[.32,1.99]				-.13	.50	[.33,2.33]
7. Duration of unemployment [g]												
>12 months				.20	.55	[.42,3.59]				.37	.62	[.43,4.86]
13-24 months				-.28	.57	[.25,2.32]				.82	.63	[.66,7.76]
Nagelkerke R^2	.29***			.31***			.13*			.15		

Notes: Reference categories for dummy variables include: (a) female; (b) youths aged 25-30; (c) higher education; (d) living on their own; (e) never received unemployed benefit; (f) have not had a work contract; (g) > 12 months of unemployment.

[†] $p < .10$; * $p < .05$; p ** $< .01$; p *** $< .0001$