

# Promoting parental support and vocational development of 8<sup>th</sup> grade students

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## Abstract

The present study aimed to evaluate the impact of a career intervention (pre-test/post-test) that promotes the parental involvement in career issues, particularly with regard to career exploration, career decision-making and perception of parental support. Participants (42 Portuguese students from 8th grade) were asked to answer a set of dilemmas that implied the involvement of their own parents to be solved. Results show a positive impact of the intervention in the environmental exploration. They also indicate that adolescents' perceptions about parents', or caregivers', interest in their career options are positively associated to their own exploration behavior.

*Keywords:* parental support, career development, career intervention, conjoint activities

## Resumo: Promoção do suporte parental e desenvolvimento vocacional de estudantes do 8º ano

O objetivo deste estudo foi avaliar o impacto de uma intervenção vocacional (pré-teste/pós-teste) promotora do envolvimento parental nas questões de carreira, ao nível dos processos de exploração vocacional, tomada de decisão de carreira e percepção do suporte parental. Foi pedido aos participantes (42 alunos portugueses de 8º ano) que respondessem a um conjunto de dilemas que implicavam o envolvimento dos pais na sua resolução. Os resultados revelam um impacto positivo da intervenção na dimensão exploração do meio e indicam que a percepção do adolescente acerca do interesse dos seus pais, ou cuidadores, relativamente às suas opções de carreira surge positivamente associado aos comportamentos de exploração.

*Palavras-chave:* suporte parental, desenvolvimento de carreira, intervenção de carreira, atividades conjuntas

## Resumen: Promoción del soporte parental y desarrollo vocacional de estudiantes de 8º año

El objetivo de este estudio fue evaluar, en una intervención vocacional (pre-test/post-test), el impacto que provoca la participación de los padres en asuntos vinculados con la elección de la carrera, particularmente en lo que respecta a la exploración vocacional, la toma de decisiones, y la percepción del apoyo parental. Se pidió a los participantes (42 estudiantes portugueses de octavo año) que respondieran un conjunto de dilemas que exigían la participación de los padres en su solución. Los resultados revelan un impacto positivo de la intervención en la dimensión exploración del medio e indican que la percepción del alumno acerca del interés de sus padres, o cuidadores, respecto a sus elecciones de carrera aparece asociado, de manera positiva, a sus comportamientos de exploración.

*Palabras clave:* ayuda parental, desarrollo de carrera, intervención de carrera, actividades conjuntas

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Vocational development is a process that starts at a very young age, mainly in childhood, to which family plays a particularly important role throughout the life-span (Palos & Drobot, 2010; Porfeli & Lee, 2012). According to Bryant, Zvonkovic, and Reynolds (2006), it is an elaborate process which encompasses achievements and aspirations originating from the academic domain and continuing throughout adolescence and adulthood into work settings. In this context, parents' involvement with their children during their school activities has been considered as beneficial and predictive of a long term effect, reflecting upon students' academic (e.g., Egbert & Salsbury, 2009; Khan & Siraj, 2012; Stewart, 2007; Topor, Keane, Shelton, & Calkins, 2010; Wilder, 2013) and life achievements (e.g., Hargrove, Creagh, & Burgess, 2002).

In career literature, previous studies have shown adolescents normally address their caregivers about career issues, and they also claim caregivers have a major influence when it comes to assisting them during educational and career transitions, as well as helping them choose a vocation (e.g., Dietrich, & Kracke 2009; Dietrich, Kracke, & Nurmi, 2011; Hargrove et al., 2002; Schultheiss, 2007; Palos & Drobot, 2010). In this domain, Dietrich and Kracke (2009) concluded that, when adolescents perceive their parents as being interested in their career choice preparation, there appears to be an increase in their career exploration activities. Dietrich and colleagues (2011) also support the notion that when adolescents find themselves facing situations regarding academic and career transitions with a decision to be made, they often consider their parents as their partners, seeking their advice and increasing their parents' initiative as for involving them as primary supporters.

Generally, career literature can be organized in two major categories of variables regarding family impact upon career development (e.g., Marchand & Pinto, 1997). On the first category, many studies focus on demographic variables, such as socioeconomic status (e.g., Ali, & Saunders, 2006; Noack, Kracke, Gniewosz, & Dietrich, 2010), and family structure (number of members) (e.g., Penick, & Jepsen, 1992). The second major category includes relational processes variables, such as parenting styles (e.g., Dietrich et al., 2011; Schultheiss, 2007; Vignoli, Croity-Belz, Chapeland, Fillipis, & Garcia, 2005), attachment (e.g., Dietrich et al., 2011; Hirschi, Niles, & Akos, 2011; Palos & Drobot, 2010), quality of parent-child relationships (e.g., Hangrove et al., 2002; Kracke, 2002), and joint action activities (Young et al., 1997), among others. In this context, parental support is defined as the assistance, related to career decision or

development, an individual receives by their primary caregiver in forms such as instrumental assistance, emotional support, verbal encouragement, and career-related modeling (Turner & Lapan, 2002). According to Turner, Croity-Belz, Chapeland, de Fillipis, and Garcia (2003), perceived parental support is related to career planning and exploration, self-efficacy, and career decision-making.

### **Perceived Parental Support upon Career Exploration and Career Decision-Making**

Career choice transitions require occupational preparation regarding exploration activities, which are influenced by proximal contexts such as family, especially parents or caregivers (Noack et al., 2010). In this sense, a secure attachment perceived by adolescents from their parents is associated with their will to get more involved and explore their environment (Kracke, 1997; Noack et al., 2010; Palos & Drobot, 2010). Dietrich and Kracke (2009) and Kracke (2002) add that one's career development is based upon career-related family communication and actions concerning adolescents' career preparation. Active students when preparing their career choice may turn to their parents and seek their guidance regarding career choice, hence most parents acknowledge their children's difficulties and react with support, ideas, suggestions, and reflections which may in turn encourage their children to explore career options. On the contrary, when adolescents perceive an overly controlling setting by their parents, they may have difficulties making a decision, misunderstanding their parents' intention and perceiving this behavior as pressure, which then results in reactant passive behavior towards career exploration and career decision-making (Dietrich & Kracke, 2009; Dietrich et al., 2011).

### **Perceived Parental Support and Career Decision-Making Self-Efficacy**

Career decision-making self-efficacy has been a topic of interest in the past decade (Betz, 2007). Many studies on this topic are based on social cognitive career theory (SCCT), which proposes a model to understand how individuals create their own vocational and career interests, choices and determine their own goals (Garcia, Restubog, Toledano, Tolentino, & Rafferty, 2012; Lent, Brown & Hackett, 1994; Restubog, Florentino, & Garcia, 2010; Turner & Lapan, 2002). SCCT suggests that parental support, as a contextual factor, has greater impact depending on how one perceives, interprets, and responds to its influence (Turner & Lapan, 2002). For example, Garcia et

al. (2012) found that the higher the perception of parental support, the stronger was the association between learning goal orientation and career decision-making self-efficacy. Moreover, Hangrove et al. (2002) suggest that family context may play a small but yet significant role in fostering adolescents' future career goals and promoting self-confidence in career planning. Additionally, parents are considered to be the primary providers of inspiration for their children, aspiring their children to reach vocational goals through processes such as career-related modeling, goal pursuit behavior, and providing their sons or daughters with information related to their career experiences (Young, 1994). Since there has been a vast array of studies which address aspects such as parent-student relationships concerning attachment and parenting styles, many of the results have supported that authoritative parenting has been linked to higher career self-efficacy (e.g., Guay, Senécal, Gauthier, & Fernet, 2003; Lim & Loo, 2003) which in turn increases career decision-making (e.g., Sovet & Metz, 2013).

### **Outcomes of Conjoint (Parent – Student) Activities**

There has been given grave relevance to conjoint activities (Dietrich et al., 2011; Young et al., 1997) and conversations (Kracke, 2002) regarding the career topic between parents and adolescents, which is considered as relevant when studying parental influence upon this matter in adolescents. According to Young and colleagues (1997), one refers to joint action when a group of people gather together and attempt to engage in a common process as a result of an intentional behavior. In fact, as long as parents and children have a relationship based on decent communication, parents are perceived by their children as a good source of information about occupations and the communication among the two has been linked to generating positive outcomes related to achievement and aspirations (Bryant et al., 2006). Parent-student activities seem to enhance better explanatory behaviors associated with adolescents' occupational exploration. Middle school children start with an in-breadth exploration of interests which then turns into vocational exploration and career planning in adolescent years (Bryant et al., 2006; Porfeli & Lee, 2012; Porfeli & Skorikov, 2010). All in all, parental involvement aspires mutual gratification between parents and students: parents who are more involved seem to participate more actively in their child's vocational development, seeking to acquire more significant information in order to understand how the system works and acknowledging better paths and alternatives for their youth with regard to supporting them (Hara & Burke, 1998).

Another aspect is that they also generate a higher sense of self-efficacy due to the fact that their knowledge can help their children achieve higher academic scores (e.g., Paloş & Drobot, 2010). On the other hand, students who benefit from their parents' involvement in academic tasks/activities are more likely to improve their school grades, which give them a larger array of future opportunities (Hoover-Dempsey & Sandler, 1995). Furthermore, it seems that verbal encouragement plays a powerful role in youth's career decision-making when they seek the support and involvement of their parents, or caregivers, either to request a second opinion or to consolidate their own opinion or option(s) (Catsambis, 1998). As Young and colleagues (1997) point out, there are three relevant processes involved here, aspiring three types of career-related conversations: 1. negotiation, when subjects bargain with each other to reach an agreement; 2. exploring available information, when subjects clarify, share, evaluate and speculate alternatives regarding career options, and 3. struggling, when subjects address the same topic defending their own opinion and debating the issue before them.

### **Present Study**

The importance of parental involvement in the vocational development of youngsters is currently supported, either by the several propositions of the theoretical models, or by the empirical studies conducted in this area. The present study aimed to evaluate the impact of a conjoint parent-student intervention on students' career exploration, career decision-making, decision-making self-efficacy and perceived parental support. In our understanding this matter has typically been untested because, until now, most of the empirical studies did not include procedural and psychological variables in the context of parents-child interactions, or in joint activities (Pomerantz, Moorman, & Litwack, 2007). Therefore, considering the theoretical expectation and evidence upon empirical studies, we expect that after a career intervention – conjoint parent-student activity, participants from the experimental group would improve on levels of exploration, career self-efficacy and perceived parental support (Instrumental Assistance, Career-Related Modeling, Verbal Encouragement, and Emotional Support) (H1), and decrease on levels of career indecision (H2).

## **Method**

### **Design**

In order to evaluate the impact of the career intervention on students' career exploration, indecision and

perceived parental support, the study adopted a quasi-experimental design, with non-equivalent groups, using two moments of data collection (T1-T2). A quasi-experimental design was chosen because the sample was not selected randomly, as subjects were selected from an intact group, in our case, 8th grade classes. The experimental group received intervention, while the control group did not receive any treatment and followed their class routines. Since, participants were chosen using intact group method, the entire class participated in the study. This option, which is not as robust as random sampling, appears almost always as a solution to be taken in the research carried out in educational contexts, because the groups already exist before the research began (e.g., Kidd, 2006).

### Participants

Participants were 78 eighth grade students (43 boys, 55.1%; 35 girls, 44.9%) enrolled in a secondary school in southern Portugal. Students ages ranged between 13 and 16 years ( $M = 13.88$ ,  $SD = 0.864$ ). Regarding parents qualification, year 12th level was held as a higher percentage (36.0%) for male parent and (42.7%) for female parent, and least significant for those who held an Undergraduate degree – mother (8.0%) and Doctorate Degree – father (2.7%). Regarding socioeconomic status (SES), 3.8% were coded as low socioeconomic status (SES), 72.4% were coded as medium SES, and 23.7% were coded as high SES. When inquired about future studies, 38.5% of these students planned to complete an undergraduate degree.

In relation to age, no significant difference was observed between the control group ( $M = 13.67$ ;  $SD = .69$ ) and the experimental group ( $M = 14.14$ ;  $SD = .99$ ),  $p > .05$ . Concerning year repetition, students belonging to the experimental group have repeated in more occasions in comparison to those in the control group ( $\chi^2 = 10,713$ ,  $df = 1$ ,  $p < .001$ ). Moreover, parents of the control group held higher education when compared to the parents' level of education of the experimental group. Regarding socioeconomic status, the control group reported higher mean values, but the differences with the experimental group were not significant. Finally, in terms of gender, no statistically significant differences were found regarding its distribution across groups.

### The Career Intervention

Students in the 8<sup>th</sup> grade, alongside their main studies, subjectively explore career paths for themselves with an indirect or even direct approach. The latter approach is normally the most adopted by the young youth, leading

them to better inform themselves (seeking information through the internet, asking others, and even collecting information from media and marketing suppliers). Whilst the former approach refers to what they may hear from their role models, their parents mainly, it is stated as a proximal context and considered as one that impacts adolescents' occupational preparation inducing greater effects on exploratory activities (Noack et al., 2010). In this light, we applied a conjoint parent-student activity designated as career dilemmas. The dilemmas consisted of problem solving situations most adolescents think about. Its purpose is for the adolescent to gather occupational information, hear their guardian's opinion and stimulate the discussion between the dyad as they work out a solution for the weekly dilemma. These dilemmas were applied once a week (five consecutive weeks) to the experimental group.

The dilemmas themselves consist of situations adolescents often experience, as an example, "*Carlos has a group of friends from a very early age, they all know what they intend to study in the future except for Carlos himself. Despite this, his older brother has chosen an alternative curriculum – a professional software course, different to the regular curriculum, although Carlos has some interest in this field of studies. His father suggests he takes the same course as his older brother, for his grades haven't been the highest. Carlos agrees with his father. In case his grades didn't allow him to apply for a University course he could always rely on the professional course and start working in the field. His only concern is leaving his friends because at the school they are attending, the professional software course does not exist which means Carlos would have to change schools and leave his childhood friends behind. In turn, his friends are trying to persuade him into enrolling in the regular curriculum. Carlos feels torn and confused.*"

In this example, the participants would bring the dilemmas home and work on them with their guardians, solving the weekly dilemma by working on a solution. It consists of two A5 sized cards, one with the dilemma itself and the other for the participants to write down the solution and also to point out with whom they solved the dilemma with. In the classroom, the participants, before receiving another dilemma for the following week, would read out their weekly "solution" of the previous dilemma, and a discussion of the previous dilemma would follow, conducted by the trainee student. Each session of discussion would last up to 30 minutes.

### Procedures

First, an authorization was granted by the school executive council in order to carry out this study, and all

participants' parents were advised with a consent letter (considering that all students who participated were under aged) agreeing to allow their children to participate in the study. Attached to the consent letter, a brief summary about what our intentions were and their purpose, as well as a simplified chart containing useful information regarding alternative school paths (when not considering continuing normal schooling) and future opportunities related to each alternative.

Data for all measures were collected in two phases, the pre-test was applied in the first week of February 2014, and the second measure post-test, late April through to the beginning of May 2014. These measures were applied in their classroom context. The instructions were read out loud and participants were advised that all the data was handled in a confidential manner. All measures and the activities (dilemmas) were applied only to those who were willing to participate signing off an informed consent. Participants were also informed that they could also interrupt their participation in the study by their own free will.

## Measures

A sociodemographic questionnaire was used to collect information regarding students' gender, age, socioeconomic status, and repetition rates. The socioeconomic status (SES) was determined by the highest academic qualification between both parents and then recoded in three levels (low = fourth grade or lower, medium = between fifth and twelfth grade, high = university degree). Repetition rates were coded as "none" or "at least one", based on the occurrence of at least one repetition during school years.

Career-Related Parent Support Scale (CRPSS) – (Turner, Alliman-Brisst, Lapan, Udipi, & Ergun, 2003; adapted by Gamboa, Quirino & Paixão, in preparation): This scale is composed by 27 items, evaluating parental support regarding career aspects. The scale itself is organized and based on four sources of Self-efficacy information: (a) past experiences accomplishments (7 items), labeled as Instrumental Assistance, in reference to parents' support of their children's career related skill development (e.g., my parents help me pick out classes that will help me in my career); (b) vicarious learning (7 items), entitled Career-Related Modeling, based upon the role parents' have regarding career-related modeling behavior and its effects on their siblings (e.g., my parents have taken me to their work), (c) social persuasion (6 items), labeled as Verbal Encouragement, regarding encouragement and appraisal toward educational and career development of their children (e.g., my parents encourage me to make

good grades), and (d) emotional arousal (7 items), entitled as Emotional Support, this last construct refers to the affection and support adolescents perceive from their caregivers regarding career development (e.g., my parents talk to me about what kind of job they would like me to have). All answers are given on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). In the original version (Turner et al., 2003), the internal consistency for the entire CRPSS scale, defined as an overall strength of perceived career-related parental support for educational and career development, was  $\alpha = .92$ . For the subscales of the CRPSS scale reliabilities were .72 (Instrumental Assistance), .87 (Career-Related Modeling), .76 (Verbal Encouragement), and .77 (Emotional Support). In the Portuguese version, reliability analysis showed optimal internally consistent levels ( $\alpha = .89$ ) for its total scale, as also for its subscales, Instrumental Assistance ( $\alpha = .73$ ), Career-Related Modeling ( $\alpha = .85$ ), Verbal Encouragement ( $\alpha = .77$ ), and Emotional Support ( $\alpha = .79$ ). The exploratory factor analysis suggested that the Portuguese version of the scale has a structure similar to the original version.

Career Decision Scale (CDS) – (Osipow, Carney, Winer, Yanico, & Koschier, 1976; adapted by Silva, 1997): This scale is made up of 19 items and organized in two sub-scales, namely: Indecision Scale composed of 16 items (Items 3-18) which intend to measure causes and background factors related to career indecision, and the Certainty Sub-Scale, career-decidedness (Items 1 and 2), in referral to the degree of certainty felt in having made a career decision. The last item, item 19 is an open question and asks individuals to portray their concerns regarding the career domain. All responses with the exception of Item 19 are made on a 4-point Likert scale (1 = not at all like me to 4 = exactly like me). Higher scores on the first 2 items indicate career certainty, whereas higher scores on the remaining 16 items indicate career indecision. In the Portuguese version Silva (1997), internal consistency values are .86 for the certainty scale (items 1 and 2), and .87 for the total of the items regarding the indecision scale (items 3 to 18). In our study, we only administered the Indecision Scale.

Career Exploration Survey (CES) – (Stumpf, Colarelli, & Hartman, 1983; adapted by Taveira, 1997): To measure exploration behavior the Portuguese version of Career Exploration Survey (Taveira, 1997) was used. Items related to exploration behaviors, dispersed on a 5-point continuum ranging from very little (1) to a great deal (5). These behaviors are characterized by four subscales: environmental exploration refers to exploration activities related to professions and employments (4 items,  $\alpha = .76$ ), self-exploration evaluates personal exploration in

the last 3 months (5 items,  $\alpha = .70$ ), intentional and systematic exploration evaluates the subjects' intention and frequency in which he/she practices exploration activities concerning self and environment (2 items,  $\alpha = .62$ ). The last subscale assesses the amount of information gathered by an individual regarding his/her self and environment (3 Items,  $\alpha = .68$ ). Validity, reliability and multidimensionality of the CES have been widely demonstrated (e.g., Kiener, 2006; Koestner, Taylor, Loiser, & Fichman, 2010; Rowold & Staufienbiel, 2010). Regarding the Portuguese version, confirmatory factor analysis (CFA), conducted by Taveira (1997), with a sample of 9th and 12th grade students, supported a 12 first-order factor structure of the CES.

Career Decision-Making Self-Efficacy Scale – Short Form (Betz, Klein, & Taylor, 1996, adapted by Silva & Paixão, 2005): This scale measures individuals' beliefs concerning their capability to achieve success on tasks that are necessary for vocational decision-making. The CDMSE-SF, is composed of 25 items consisting of statements that describe necessary tasks of achievement based upon career decisions, divided by 5 subscales: self-evaluation precision – 5 items (e.g., evaluating your capabilities with precision,  $\alpha = .69$ ); the gathering of occupational information – 5 items (e.g., talking with someone who is employed in the domain you're interested in,  $\alpha = .72$ ); selection of goals – 5 items (e.g., choosing a career path appropriate to your interests,  $\alpha = .67$ ); preparation of future plans – 5 items (e.g., planning goals for the next five years,  $\alpha = .70$ ) and, solving problems – 5 items (e.g., identifying satisfactory career paths or alternatives, if you are unable to choose your first alternative,  $\alpha = .53$ ). Individuals are asked to indicate the level of trust they feel regarding their capability to achieve the tasks mentioned by the items, using a 5-point Likert scale whereas 1 = no trust and 5 = total trust. In the Portuguese version, the internal consistency of the scale is .90 for its total.

## Results

Results have been organized in three phases. First, in Table 1, we can see the bivariate correlations between the studied variables (at T1; and between moments: T1 x T2). As a second phase, represented in Table 2, results show mean values, standard deviations, and *t* test for paired samples. Concerning the third and last phase, results show interaction effects – moments versus groups (ANOVAS with repeated measures).

At T1, bivariate correlation analysis presented in Table 1 shows that older students and students with higher repetition rates perceived more parental support regarding Career-Related Modeling ( $r = .23, p < .05$ ). Girls

perceived more parental support than boys in the four dimensions of the CRPSS, as suggested by the positive correlations observed. Students without repetitions reported higher levels of parental support: Instrumental Assistance ( $r = .29, p < .01$ ), Verbal Encouragement ( $r = .32, p < .01$ ) and Emotional Support ( $r = .32, p < .01$ ). According to the results, there was not any association between vocational variables and socioeconomic status. We can also observe that there were significant results found between adolescents' career decision-making self-efficacy and perceived parental support variables: Instrumental Assistance ( $r = .24, p < .05$ ), Career-Related Modeling ( $r = .27, p < .05$ ), Verbal Encouragement ( $r = .33, p < .01$ ), and Emotional Support ( $r = .37, p < .01$ ). Similarly, the exploration variables (Self-Exploration, Environmental Exploration, Intentional Systematic Exploration, and Amount of Information) showed significant results with the latter variables mentioned above – perceived parental support variables, with highest correlations between Environmental Exploration and Verbal Encouragement ( $r = .42, p < .01$ ) and Emotional Support ( $r = .41, p < .01$ ), and between Intended-Systematic Exploration and Emotional Support ( $r = .35, p < .01$ ). Still at T1, career decision-making self-efficacy correlated significantly and positively with participants' Self-Exploration ( $r = .28, p < .05$ ), Environmental Exploration ( $r = .34, p < .01$ ) and Amount of Information ( $r = .24, p < .05$ ).

Also, considering correlations between moments (T1 x T2), we have found that Career-Related Modeling, Self-Exploration, and Intentional Systematic Exploration are situated below .50. All the other variables are positioned above .50. Altogether, our results point out that perceived parental support has been positively correlated to adolescents' career decision self-efficacy, and exploratory activities. However, correlations between parental support variables and indecision were non-significant.

Table 2 presents descriptive statistics of all variables included in the study (means and standard deviations) regarding the groups (experimental and control) and moments (pre-test and post-test). Considering vocational variables mean values at T1 (pre-test), independent sample *t* test did not show significant differences between experimental and control groups. However, the control group presented superior means in comparison to the experimental group in all variables.

No significant differences were found between T1 and T2 scores for the control group. On the other hand, in the experimental group, significant differences were observed for Environmental Exploration ( $t = -2.575; p = .014$ ), Verbal Encouragement ( $t = 2.227; p = .032$ ), and Indecision ( $t = -1.986; p = .055$ ).

Table 1

*Bivariate correlations among variables within the two moments (T1, T2) and between moments (T1 x T2) (n = 78)*

Variables	1	2	3	4	5	6	7	8	9	10	11
1. IA T1	-										
2. CM T1	.47**	-									
3. VE T1	.71**	.43**	-								
4. ESUP T1	.71**	.50**	.81**	-							
5. IND T1	-.05	.10	-.05	-.001	-						
6. CDMSES T1	.24*	.27*	.33**	.37**	-.13	-					
7. SE T1	.16	.13	.21	.27*	.10	.28*	-				
8. EE T1	.30**	.15	.42**	.41**	-.09	.34**	.63**	-			
9. ISE T1	.30**	.23*	.27*	.35**	-.02	.17	.35**	.48**	-		
10. AI T1	.20	.16	.15	.13	-.31**	.24*	.20	.35**	.36**	-	
11. IA T2	.76**	.39**	.73**	.75**	-.01	.04	.29*	.33	.20	.39**	-
12. CM T2	.39**	.38**	.32**	.44**	-.08	.23*	.23	.13	.09	.73**	.39**
13. VE T2	.73**	.32**	.74**	.73**	.00	.14	.12	.19	.14	.75	.73**
14. ESUP T2	.75**	.44**	.73**	.64**	.20	.11	.23*	.32**	.21	-.01	.75**
15. IND T2	-.01	-.08	.00	.20	.59**	-.31**	-.08	-.12	-.01	.04	-.01
16. CDMSES T2	.04	.23*	.14	.11	-.31**	.64**	.21	.35**	.18	.29*	.04
17. SE T2	.29*	.23*	.12	.23*	-.08	.21	.38**	.56**	.45**	.33**	.29*
18. EE T2	.33**	.13	.19	.32**	-.12	.35**	.56**	.52**	.51**	.20	.33**
19. ISE T2	.20	.09	.14	.21	-.01	.18	.45**	.51**	.34**	.31**	.20
20. AI T2	.31**	.24*	.23*	.26*	-.28*	.49**	.54**	.68**	.54**	.56**	.31**
21. Age	.22	.23*	-.18	-.20	-.08	.05	.02	-.05	.00	.02	-.23*
22. Gender	.30**	.28**	.26**	.33**	.07	.19	.21	.07	.14	-.18	.11
23. SES	.16	.05	.16	.13	-.01	-.06	-.18	.01	.01	.04	.01
24. Repetitions	.29*	.21	.32**	.32**	-.04	.08	.02	.15	-.06	.05	.28*

  

Variables	12	13	14	15	16	17	18	19	20	21	22	23
1. IA T1												
2. CM T1												
3. VE T1												
4. ESUP T1												
5. IND T1												
6. CDMSES T1												
7. SE T1												
8. EE T1												
9. ISE T1												
10. AI T1												
11. IA T2												
12. CM T2	-											
13. VE T2	.32**	-										
14. ESUP T2	.44**	.73**	-									
15. IND T2	-.08	.00	.20	-								
16. CDMSES T2	.23*	.14	.11	-.31**	-							
17. SE T2	.23*	.12	.23*	-.08	.21	-						
18. EE T2	.13	.19	.32**	-.12	.35**	.56**	-					
19. ISE T2	.09	.14	.21	-.01	.18	.45**	.51**	-				
20. AI T2	.24	.23*	.26*	-.28*	.49**	.54**	.68**	.54**	-			
21. Age	-.19	-.24*	-.26*	.01	.10	.01	.04	-.18	.13	-		
22. Gender	.08	.13	.15	.01	-.07	-.03	-.18	-.20	-.15	-.21	-	
23. SES	.12	.06	.09	.05	-.06	-.14	-.13	-.03	-.12	-.32**	.04	-
24. Repetitions	.14	.43**	.30**	-.03	.04	-.07	-.05	.13	-.07	-.73**	.14	.36**

Note: Career-Related Parent Support Scale – CRPPSS (IA = Instrumental Assistance; CM = Career-Related Modeling; VE = Verbal Encouragement; ESUP = Emotional Support); Career Decision Making Self-Efficacy Scale = CDMSES; Career Decision Scale (IND = Indecision); Career Exploration Scale (SE = Self-Exploration; EE = Environmental Exploration; ISE = Intentional and Systematic Exploration; AI = Amount of Information) SES = Socioeconomic Status. Codes for: gender (0 = male; 1 = female), repetitions (0 = at least one, 1 = none).\*  $p < .05$ , \*\*  $p < .01$

Table 2

*Means, standard deviation, t-test for paired samples, ANOVAs and effect size*

Dimensions	Experimental Group (n = 42)				Control Group (n = 36)				F*	p	$\eta^2$
	Mean		t	p	Mean		t	p			
	(Standard Deviation)	Pre-Test			Post-Test	(Standard Deviation)					
Instrumental Assistance	3.64 (.74)	3.63 (.74)	.05	.96	3.75 (.86)	3.63 (.77)	1.28	.21	.33	.57	.005
Career-Related Modeling	4.06 (.88)	4.09 (.67)	-.23	.82	4.27 (.61)	4.15 (.69)	1.14	.26	.07	.79	.001
Verbal Encouragement	4.24 (.62)	4.07 (.74)	2.23	.03	4.40 (.62)	4.25 (.67)	1.83	.07	.01	.94	.001
Emotional Support	3.49 (.94)	3.48 (.95)	.061	.95	3.86 (.86)	3.69 (.84)	1.37	.18	.42	.521	.006
Indecision	2.20 (.72)	2.37 (.64)	-1.99	.06	2.43 (.57)	2.39 (.56)	.53	.60	1.78	.187	.024
Self-Efficacy	3.21 (.74)	3.29 (.70)	-.845	.40	3.51 (.68)	3.44 (.63)	.77	.45	.94	.336	.013
Self-Exploration	3.02 (.84)	3.18 (.84)	-1.25	.22	3.11 (1.01)	3.16 (.91)	-.26	.79	.31	.583	.004
Environmental Exploration	2.49 (.87)	2.84 (.92)	-2.58	.01	2.71 (1.09)	2.65 (1.15)	.35	.73	6.46	.013	.081
Systematic Exploration	2.55 (1.11)	2.75 (.87)	-1.12	.27	2.76 (1.07)	2.64 (1.04)	.60	.55	2.19	.143	.03
Amount of Information	3.30 (.77)	3.44 (.75)	-1.16	.25	3.44 (.75)	3.36 (1.01)	.62	.54	1.18	.281	.016

Note: \* F statistics – interaction effect – ANOVA with repeated measures

Ultimately, ANOVAS with repeated measures revealed significant interactions (moment vs. group), regarding Environmental Exploration ( $F = 6.46$ ;  $p = .013$ ;  $\eta^2 = .081$ ). The experimental group reported more significant gains in comparison to the control group, suggesting a positive effect of the intervention. We observed an interaction pattern in which the experimental group presented a lower mean on Environmental Exploration in T1 when compared with the control group, and a higher mean in T2.

### Discussion

Concerning the observed relationships between socio-demographic variables (age, gender and SES) and the different dimensions of parents' support (CRPSS), it should be noted that overall the results are consistent with previous studies (e.g., Dietrich et al., 2011; Dietrich &

Kracke, 2009; Noack et al., 2010; Sovet & Metz, 2013). In our sample, female participants reported higher levels of career exploration perceived parental support than boys. On the other hand, older students perceived more parental support than younger students. Moreover, the literature stresses the importance of socioeconomic status (SES) as a predictor of career development (Lent et al., 1994). However, the present study did not find a significant association between SES and the vocational variables studied. To some extent, these results could be attributed to the restricted range of SES levels because 72% of the participants in this study were in the moderate SES level.

As expected, bivariate correlation analysis showed that perceived parental support is associated with career exploration activities (e.g., Hirschi et al., 2011; Kracke, 1997; Noack et al., 2010; Paloş & Drobot, 2010), and self-efficacy (e.g., Betz, 2007; Stringer & Kerpelman,

2010; Turner & Lapan, 2002; Turner et al., 2003). Like previous research in the field, these results highlight parents' importance in career development. However, unlike our expectations (e.g., Dietrich & Kracke, 2009), correlations between the perceived parental support variables (Instrumental Assistance, Career-Related Modeling, Verbal Encouragement, and Emotional Support) and Indecision were non-significant. This finding might suggest that 8th grade students are still at a very early stage of the decision-making process – in-breadth exploration (e.g., Porfeli & Lee, 2012; Porfeli & Skorikov, 2010), which has no impact on career indecision levels.

According to the information presented on Table 2, two of the four dimensions of the perceived parental support, namely verbal encouragement ( $M = 4.40$ ) and career-related modeling ( $M = 4.27$ ), have higher means in comparison to the other two dimensions, instrumental assistance, and emotional support. Turner and colleagues (2003) and Stringer and Kerpelman (2010) also found that these two dimensions held higher means in comparison to the other two. In light of these results, we may infer that parents' support is strongly related to sharing their own work and to their encouragement to pursue studies in a higher level.

Our main aim was to evaluate the impact of a conjoint parent-student activity regarding a child's vocational development according to one's self-efficacy, indecision and exploration activities. As expected (e.g., Dietrich et al., 2011; Young et al., 1997), the intervention applied to the experimental group showed positive results, mainly regarding environmental exploration. As already mentioned above, joint activities is a concept that several scholars found essential to human agency as also to its enhancement. However, contrary to our expectations, the career intervention had no significant impacts on the other dimensions of vocational development. Thus, these results

suggest that conjoint activities were associated with students' information gathering (e.g., environmental exploration) but did not affect other vocational processes, such as self-exploration, which require higher levels of self-reflection. On the other hand, between T1 and T2 there were no significant changes in parental support levels. This result seems to suggest that changes in perceived parental support do not depend on punctual and specific conjoint parent-student activities.

To sum, in this study we have found a major contribution - conjoint parent-student activities are positively related to 8<sup>o</sup> grade students' vocational development. As Young and colleagues (1997) suggested, these findings support the fact that parental support through a conjoint activity with their children might have a positive effect on child's career development.

### Limitations and Directions for Future Research

Despite a significant effect on environmental exploration have been observed in this study, we must have in mind that the quality of the intervention itself was not controlled. Our intervention was based upon an indirect approach, where the student would work on the activity with their parents/guardians at home. In future research, a direct approach should be adopted (e.g., workshops delivering information about the importance of parental support and joint activities, which then would lead to practical situations – addressing the dilemmas). The sample size itself also appears to be insufficient in order to produce solid results. Additionally, in future research will be important to assess the long term impacts (T3) of conjoint parent-student activities on critical career development outcomes, such as career decision making and career commitment. Finally, it should be noted that the findings of our study may be limited to the 8th grade Portuguese students.

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